B&T APC9/10/40/45 PRO

WEAPON FAMILY

SERVICE MANUAL

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SM-APC9_10_40_45-PRO-00-EN

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Related documents:

Semi Automatic Variants:

APC9/10/40/45 Operator Manual..... TM-APC9/10/40/45 PRO HA EN
APC9 Parts Catalogue ..... PC-APC9 PRO-HA-EN
APC10 Parts Catalogue .....PC-APC10 PRO-HA-EN
APC40 Parts Catalogue .....PC-APC40 PRO-HA-EN
APC45 Parts Catalogue .....PC-APC45 PRO-HA-EN

Full Automatic Variants:

APC9/10/40/45 Operator Manual..... TM-APC9/10/40/45 PRO AA EN
APC9 Parts Catalogue .....PC-APC9 PRO-AA-EN
APC10 Parts Catalogue .....PC-APC10 PRO-AA-EN
APC40 Parts Catalogue .....PC-APC40 PRO-AA-EN
APC45 Parts Catalogue .....PC-APC45 PRO-HA-EN

REMARK!	
	This operator manual covers the entire APC9/10/40/45 weapon family. On the Pictures show normally the Standard Version. Where necessary the operating steps are shown separately for the different variants Due to continuous efforts to improve the weapon, it is possible that certain descriptions in this manual may differ from the actual weapon.

Abbreviations

POA:	Point of Aim
POI:	Point of Impact
MPI:	Mean Point of Impact
Left / right side:	Defined looking in firing direction.

1. General rules

READ MANUAL BEFORE USE.

1.1 Safety rules

1. Consider every weapon loaded until checked personally by the individual operator.
2. Always keep fingers off the trigger and outside the trigger guard until the sights are on target.
3. Always point the weapon in a safe direction.
4. Verify your target and the backstop.
5. Before firing always verify the serviceability and condition of both the weapon and ammunition.
6. Hearing and eye protection are mandatory.
7. Be sure to use NATO, SAAMI or CIP certified cartridges of correct caliber only.

SAFETY ADVICE!	
	Defects that can be traced back to the use of non NATO, SAAMI or CIP ammunition (especially reloaded cartridges) are not covered by the guarantee!

8. If a cartridge fails to ignite, keep the muzzle pointed in a safe direction and open the chamber only after a minimum of 30 seconds.
9. Live fire training should be carried out in open or well-ventilated areas to prevent excessive exposure to toxic gases.
10. Operate your weapon consciously and do not use excessive force.

1.2 Maintenance rules

1. The weapon is to be cleaned after each deployment or firing.
2. Any malfunctions are to be reported to the unit armorer or manufacturer.
3. The weapon is to be presented to the unit armorer for inspection after each mission or a minimum of once per year.

2. Technical specifications

2.1 Overview - APC9/10/40/45

2.2 General description

The APC9/10/40/45 is a select fire submachine gun (SMG)

The working principle is recoil operation:

The recoil of a fired projectile is driving the bolt rearward. When traveling back, the bolt extracts and ejects the case of the fired cartridge, compresses the mainspring and cocks the internal hammer of the trigger group. At the very end of the bolt's travel, a hydraulic recoil buffer is stopping it gently and the compressed mainspring drives the bolt back against the barrel. While traveling forward, the bolt feeds a new cartridge out of the magazine into the chamber of the barrel. After completion of such a cycle, the weapon is loaded and armed.

The next shot is released by pulling the trigger, when the gun is set to semi automatic fire. If the gun is set to full automatic fire mode and the, the shot is released by the automatic sear as long as the trigger is pulled.

The weapon has mechanical flip up sights, an additional reflex sight can be mounted on the accessory rail. The reflex sight can be included in the scope of delivery, depending on the version of the weapon.

Controls such as bolt catch, magazine catch, fire selector and charging handle are designed ambidextrous.

2.3 General technical data

Designation	APC_ PRO AA
Manufacturer	B&T AG - Switzerland
Operating system	Recoil operated, closed bolt blowback action
Sights	Flip-up iron sight with two aperture holes
Bore height	72 mm / 2.87 in
Rail height	38 mm / 1.49 in
Interfaces	4 NATO Accessory rails
Scope of delivery	Weapon with magazines, carrying sling, cleaning kit, bag

Stock Options	Stock length			Stock width		Weight difference to Standard
	retracted	extracted	folded / retracted	folded out / retracted	folded / retracted	
	[mm]					[g]
Folding stock (standard)	240	n.v.	30	62	102	-
Teleskopic stock**	n.v.	232	53	54	n.v.	+147
Fold- retractable stock**	202	242	31	62	103	+253
Fold- retract. stock PRO**	193	270	30	52	84	+100
Fixed stock	247	n.v.	n.v.	62	n.v.	+90
Folding stock Skeleton	230	n.v.	36	38	53	-90
Helmet stock**	218	293	31	62	103	-20
M4-Adapter foldable***	59	n.v.	30	62	102	-150
NAR-Adapter	18	n.v.	n.v.	389	n.v.	-230
M4-Adapter***	30	n.v.	n.v.	62	n.v.	-150

**Extracted to the maximum, intermediate positions existent

*** Without M4 stock.

The overall length is determined by adding the receiver length and the stock length.

Technical data are provided for information only and shall not serve as acceptance criteria.

2.3.1 Technical data - APC9 PRO AA

Designation	APC9 PRO AA
Product ID	BT-36015
Caliber	9x19 mm
Magazine capacity	15/30 round
Rifling	6 Grooves, right hand twist

Typ		Standard	Short «K»	Long «L»	Silenced «SD»
Barrel length	[mm]	175	138	240	146
Length standard	[mm]	597	373	662	767
Length receiver	[mm]	357	320	422	526
Width	[mm]	62	57	62	62
Height*	[mm]	215	215	215	215
Weight	[kg]	2.7	2.78	2.89	3.17

* Without magazine, flip-up sights folded.

2.3.2 Technical data - APC10 PRO G AA

Designation	APC10 PRO G AA
Product ID	BT-361407
Caliber	10 mm AUTO
Magazine capacity	15 round
Rifling	6 Grooves, right hand twist

Barrel length	[mm]	175
Length standard	[mm]	612
Length receiver	[mm]	372
Width	[mm]	60
Height*	[mm]	215
Weight	[kg]	2.7

* Without magazine, flip-up sights folded.

2.3.3 Technical data - APC40 PRO G AA

Designation	APC40 PRO G AA
Product ID	BT-361169
Caliber	.40 S&W
Magazine capacity	22 round
Rifling	6 Grooves, right hand twist

Barrel length	[mm]	175
Length standard	[mm]	597
Length receiver	[mm]	357
Width	[mm]	62
Height*	[mm]	215
Weight	[kg]	2.7

* Without magazine, flip-up sights folded.

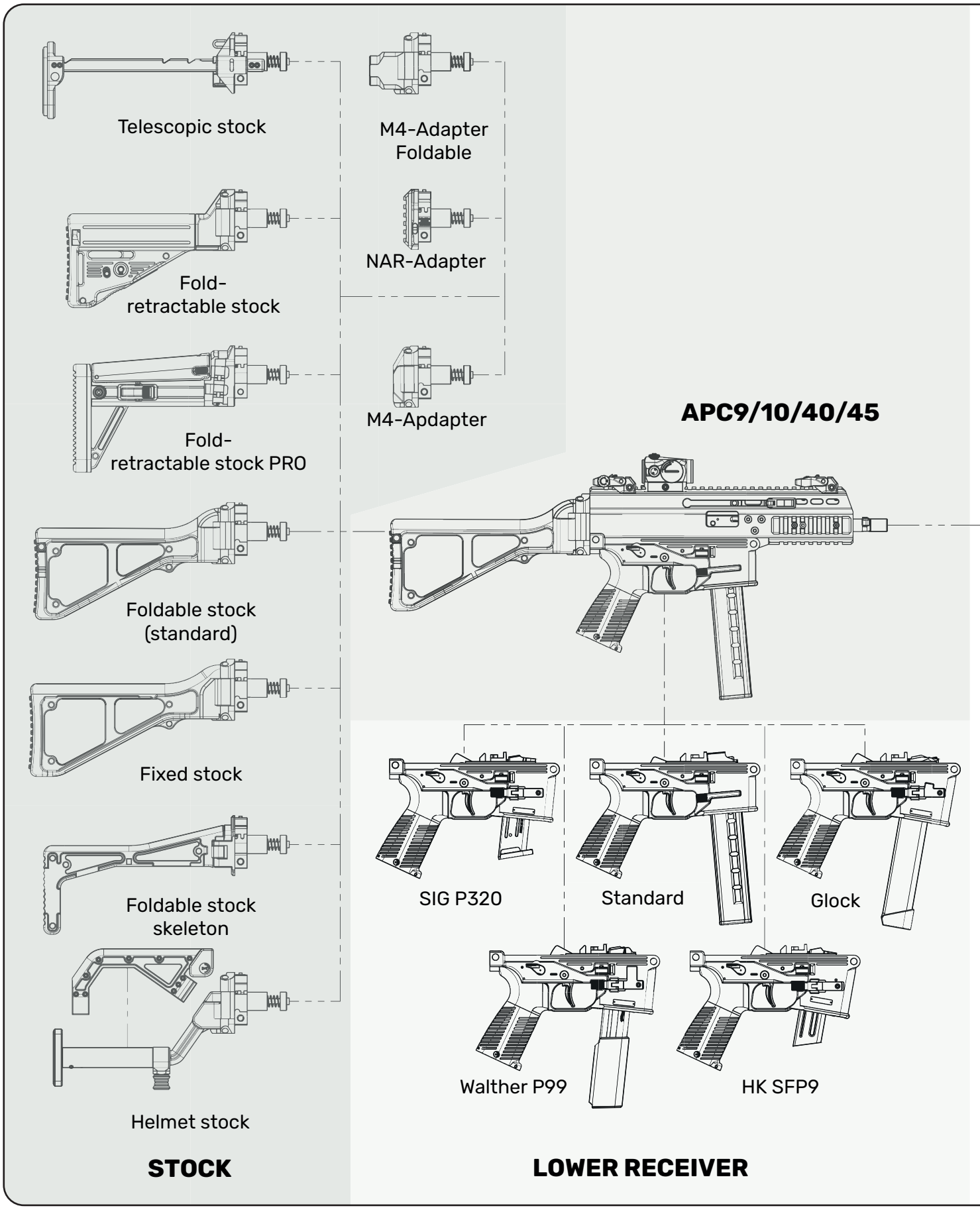
2.3.4 Technical data - APC45 PRO AA

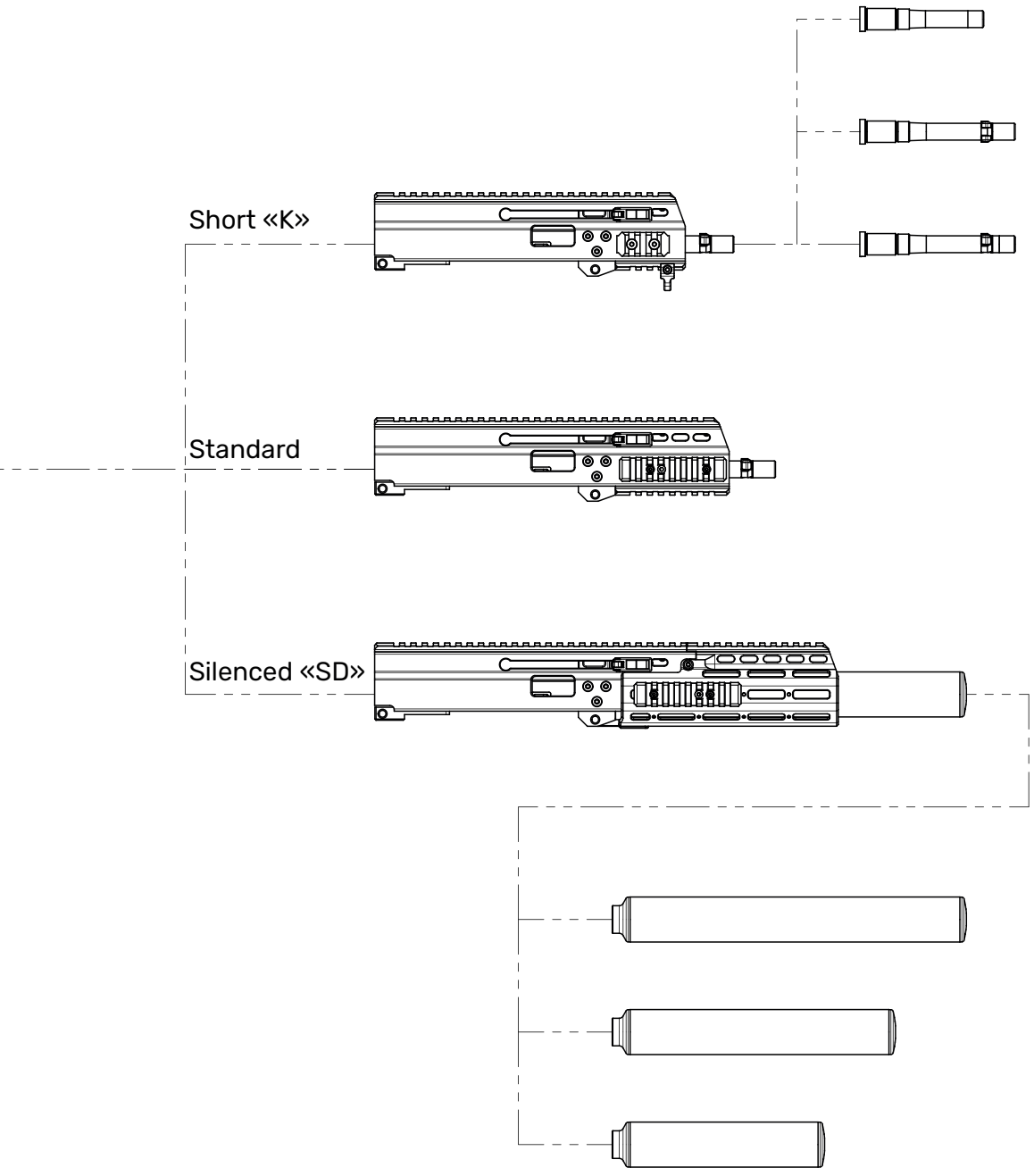
Designation	APC45 PRO AA
Product ID	BT-361431
Caliber	.45 ACP
Magazine capacity	15/30 round
Rifling	6 Grooves, right or left hand twist

Barrel length	[mm]	175
Length standard	[mm]	597
Length receiver	[mm]	357
Width	[mm]	62
Height*	[mm]	215
Weight	[kg]	2.5

* Without magazine, flip-up sights folded.

2.4 Variant overview



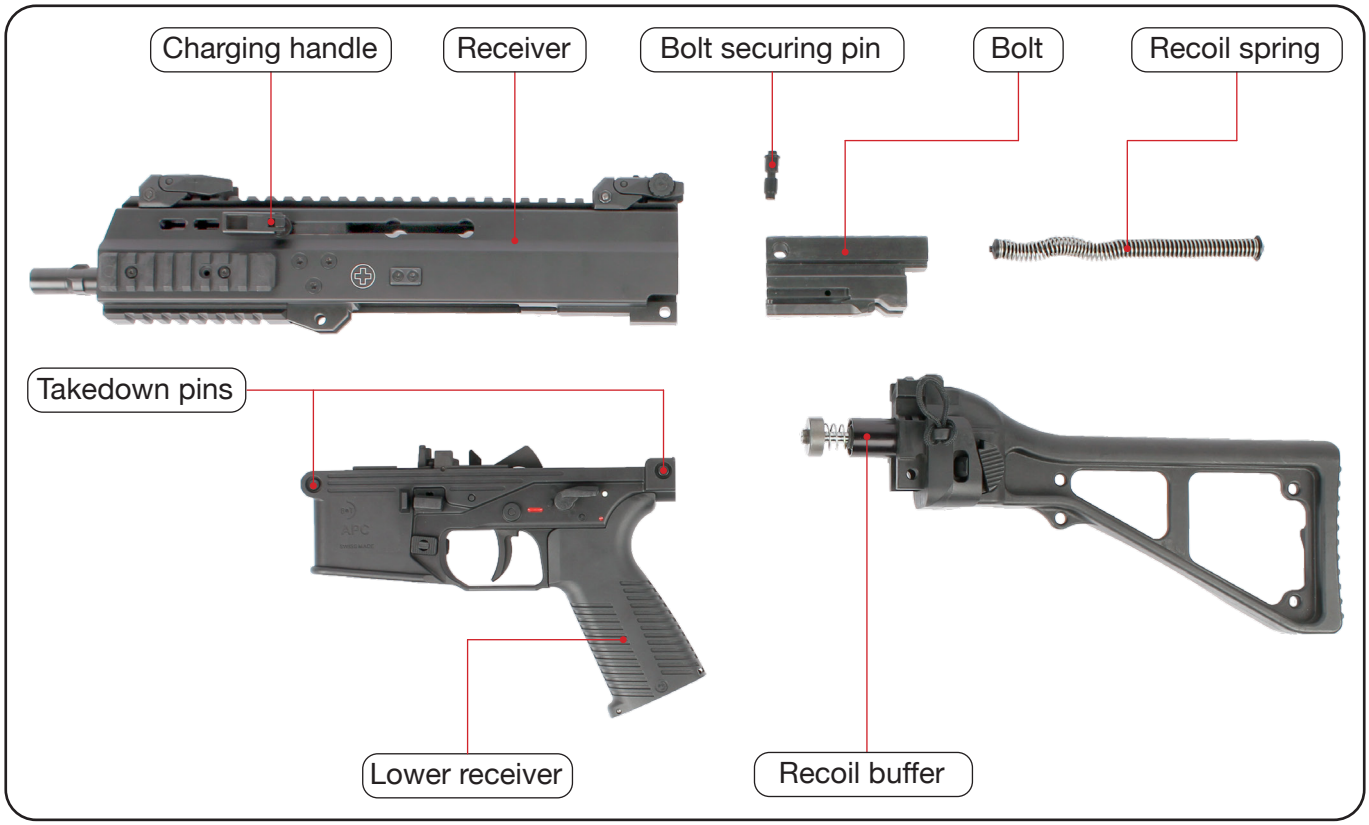


UPPER RECEIVER

3. Nomenclature

3.1 Weapon complete

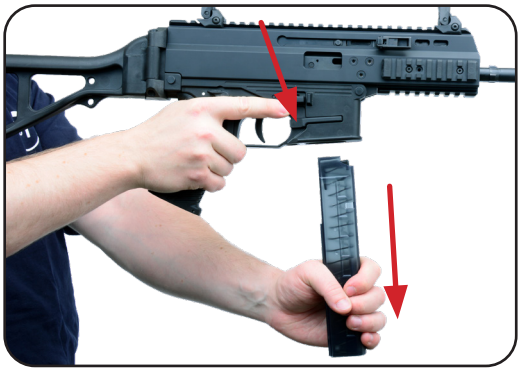
3.2 Weapon disassembled



4. Operating

4.1 Safety check

a. Rotate the fire selector to «safe» position
b. Press the magazine retainer and pull the magazine downward out.



c. Pull the charging handle completely to the rear and inspect the chamber visually to be clear.
d. Lock the bolt in open position

4.2 Weapon operation

All operating steps can be taken from the corresponding manual.

5. Maintenance plan

5.1 Routine maintenance

a. The weapon must be cleaned after each deployment or shooting training.
b. Malfunctions are to be reported to the unit armorer or the manufacturer.
c. After each use, or at least once a year, the weapons are to be inspected by the unit armorer and a functional test is to be carried out.

5.2 Preventive maintenance

a. Every 5,000 rounds, a basic cleaning must be performed by the unit armorer. This includes a complete disassembly of the gun and washing of all parts.
b. To reduce the probability of failure of the gun, it is recommended to replace the wear parts after 5,000 shots and the spare parts after 10,000 shots as a precaution.
c. The replacement of the parts is to be carried out according to the respective descriptions in this document.

Type	Description	Item No.			
		APC9 Pro	APC40 Pro	APC45 Pro	APC10 Pro APC45 Pro -G
Wear Parts	Extractor	BT-36257			
	Extractor spring	BT-36260			
	Extractor plunger	BT-36259			
	Shock buffer (ectractor)	BT-36262			
	Disconnector	SA: BT-36191 - FA: BT-36297			
	Disconnector spring	BT-36232			
Spare parts	Firing pin	BT-36254			BT-361160
	Firing pin spring	BT-36255			
	Hammer spring	SA: BT-36229 - FA: BT-36249			
	Trigger return spring	BT-36375			

5.3 Function check

a. Perform the safety check (see chapter 4.1 on page 13).
b. Push on right side bolt catch
   » The bolt shall snap into closed position.
c. Pull the charging handle to its rearmost position and push the bolt catch upward
   » The bolt shall stay in open.
d. Push on the left side bolt catch
   » The bolt shall snap into closed position.
e. Engage the safety and pull the trigger
   » The hammer shall not strike.
f. Rotate the fire selector to all existing positions and back. Perform the check with both sides
   » The fire selector shall snap audibly in all positions.
g. Rotate the fire selector to single fire position, pull the trigger and hold

» The hammer shall strike audibly.

h. Pull the charging handle to the rearmost position and slide it to forward position. Release the trigger and pull it again
» The hammer shall strike audibly.

i. Engage the safety, insert an empty magazine and pull downward
» The magazine retainer must hold securely.

j. Pull the charging handle to the rearmost position and release
» The bolt shall stay open.

k. Push the left magazine retainer and pull the magazine downward
» The magazine shall come loose.

l. Reinsert the empty magazine, push the right magazine retainer and pull the magazine downward
» The magazine shall come loose.

m. Pull the charging handle to the rearmost position and release
» The Bolt shall run to closed position.

n. Repeat the steps i to m with all available magazines.

o. Engage the sights (front and rear).
» Both shall audibly snap in open position and point straight upward.

p. Close sights (front and rear).
» Both shall audibly snap in closed position.

q. Check the extracting and the retracting and the locking mechanisms of installed stock for proper function

r. Inspect installed accessories for function and tight mounting.

Only applies for fully automatic variants:

s. Pull the charging handle to the rearmost position and slide it to the forward position

t. Rotate the fire selector to full auto position, pull trigger and hold
» The hammer shall strike audibly.

u. While pulling the trigger, pull the charging handle to the rearmost position and slide it to the forward position
» The hammer shall strike audibly when the bolt reaches the forward position.

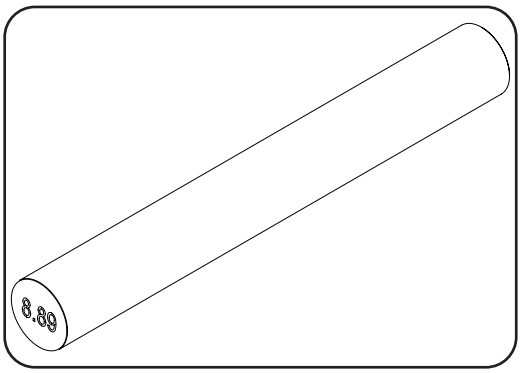
v. Release the trigger and pull it again
» The hammer shall not strike.

If any function fails, disassemble the weapon, check for defective pats, reassemble the weapon and check for correct reassembly. If the failure persists, refer to unit armorer or manufacturer.

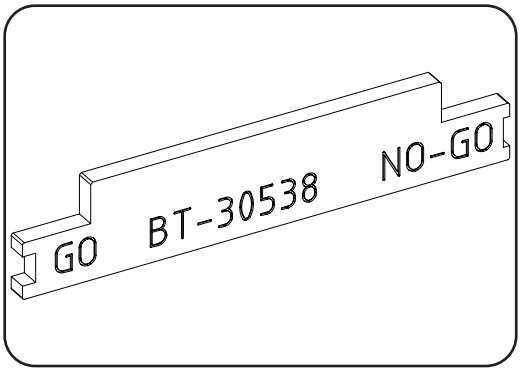
6. Gauges

Below listed gauges are required to inspect the APC9/10/40/45

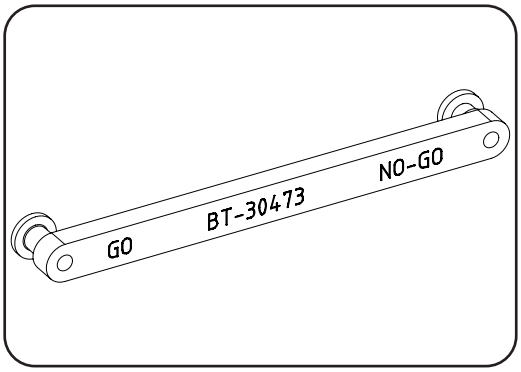
a. Barrel rejection gauge



b. Firing pin protrusion gauge



c. Extractor gauge

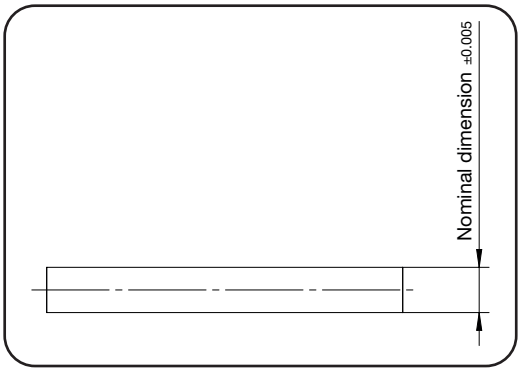


Description	Item No.		
	APC9 Pro	APC10/40 Pro	APC45 Pro
Barrel rejection gauge	BT-36198		
Firing pin protrusion gauge			
Extractor gauge	BT-36621		

6.1 Gauge inspection

6.1.1 Inspection barrel rejection gauge

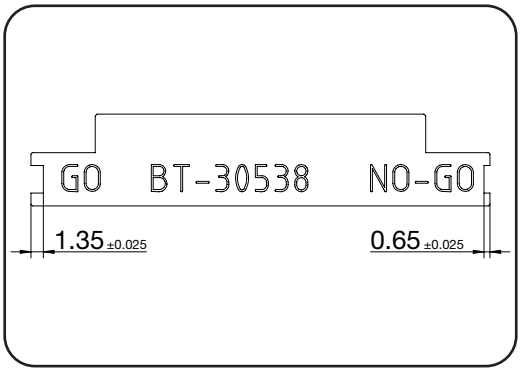
a. Visually inspect the gauge for rust, notches, breakouts, and deformations.
   » If present, the gauge must be suspended
b. Check the dimensions according to the picture and table.
   » If not fulfilled, the gauge must be suspended.



Description	Nominal Dimension		
	APC9 Pro	APC10/40 Pro	APC45 Pro
Barrel rejection gauge	8.89	9.98	11.30

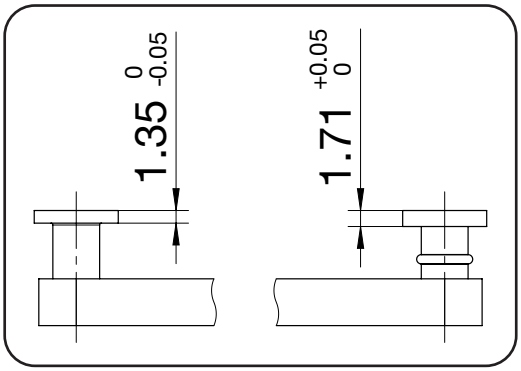
6.1.2 Inspection firing pin protrusion gauge

a. Visually inspect the gauge for rust, notches, breakouts, and deformations.
   » If present, the gauge must be suspended
b. Check the dimensions according to the picture
   » If not fulfilled, the gauge must be suspended.



6.3.1 Inspection extractor gauge

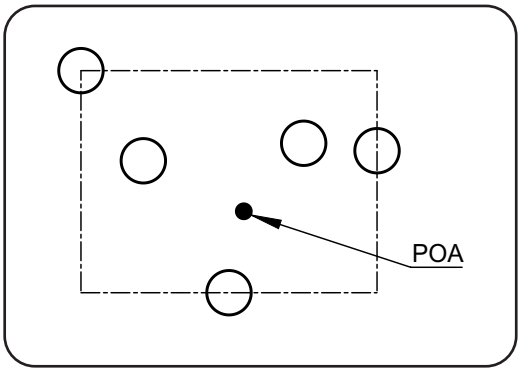
a. Visually inspect the gauge for rust, notches, breakouts, and deformations.
   » If present, the gauge must be suspended
b. Check the dimensions according to the picture
   » If not fulfilled, the gauge must be suspended.



7. Inspections and measures on weapon complete

7.1 Zero check

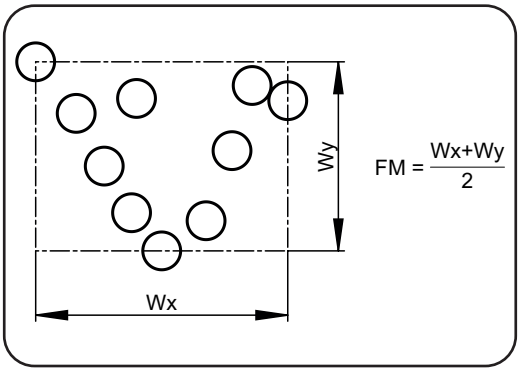
a. Shoot 5 rounds at the zeroing distance (25m recommended).
b. Determine the covering rectangle.
   » If the covering rectangle contains the aiming point (POA), the sight setting is correct.
   » If the covering rectangle does not contain the aiming point (POA), adjust the setting of the sight(see chapter 8.1 on page 19).



7.2 Checking the precision

7.2.1 Evaluating the precision

The figure of merit is used as a measure of precision.
The figure of merit is the average of the maximum horizontal (Wx) and vertical spread (Wy) of a 10-shot group.



7.2.2 Collecting reference Data

The reference value of the existing weapon/ammunition combination is determined by determining the FM of 10 randomly selected weapons and averaging them.

7.2.3 Assessing an individual Weapon

If the FM of the tested firearm exceeds 1.5x the reference value, measures are indicated.
In this case, first check the sights (see chapter 8.2 on page 19) and after any measures determine the FM again. If the accuracy remains poor, check the barrel (see chapter 9.1 on page 20) and determine the FM again after taking any necessary measures.
If successful, check point of impact (see chapter 7.1 on page 18), otherwise suspend the weapon for use and contact the manufacturer.

8. Inspections and measures on the sights

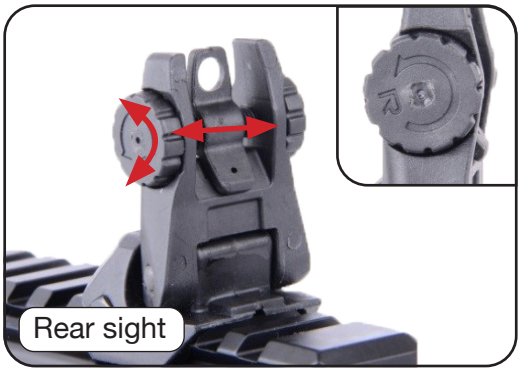
8.1 Adjusting the sights

a. Push the sights up until they snap in upright position.
   » Operator Manual.
b. Turn the adjusting wheel in the front sight in the direction of the arrow «UP» to raise the MPI.

One click	2.5cm @ 30m
One turn	10cm @ 30m

c. Turn the rear sight wheel in the direction of the arrow «R» to move the MPI to the right.

One click	1cm @ 30m
One turn	10cm @ 30m

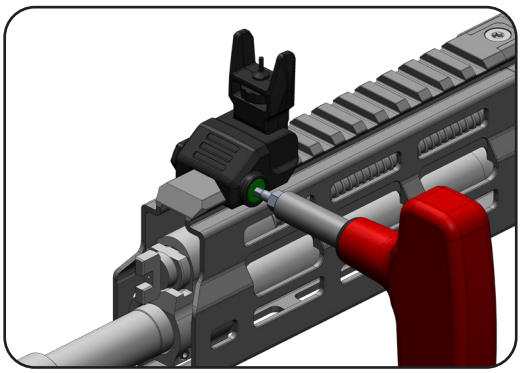


d. Perform a zero check. (see chapter 7.1 on page 18)

8.2 Inspection and measures

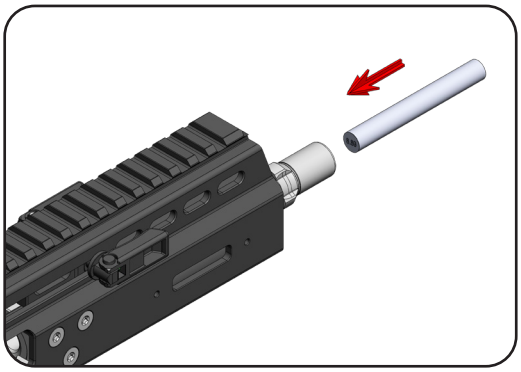
a. Check the sights for signs of impact or other excessive force and suspend them for use if necessary.
b. Open both sights by hand until they audibly engage in the vertical position.
c. Fold in the sights by hand until they audibly engage in the horizontal position.

d. Hold the sights firmly in your hand and try to move them. If play can be detected, increase the clamping tension clockwise using an Allen key.
e. Perform a zero check. (see chapter 7.1 on page 18)



9. Inspections and measures on the upper receiver

9.1 Barrel caliber inspection

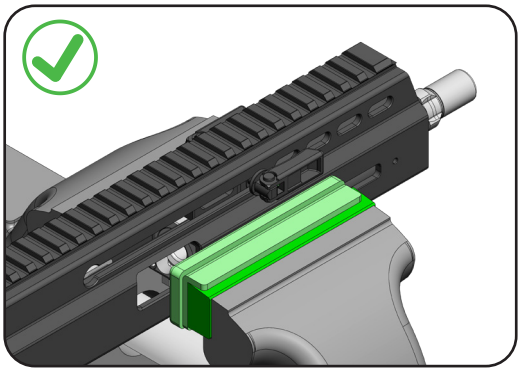


a. Disassemble the weapon.
   » Operator Manual.
b. Clean the barrel and wipe it dry with a cotton rag.
c. Try to insert the plug gauge to the barrel from the muzzle side
   » If the gauge intrudes, reject the barrel for being to.

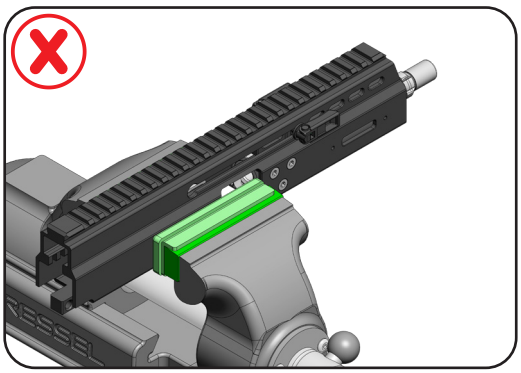
REMARK!	
ⓘ	Do not apply excessive force when inserting the gauge. This could damage the barrel.

9.2 Clamping the upper receiver

SAFETY-REMARK!	
⚠	CLAMPING THE UPPER RECEIVER AT AN INCORRECT POINT OR WITH EXCESSIVE FORCE CAN LEAD TO DAMAGE!



Use plastic jaws to clamp the upper receiver in the vice.
The upper receiver can be clamped in the area of the barrel block; use flat plastic vise jaws for this purpose.
Before clamping in this area any side Rails must be removed(-see chapter 9.3.1 on page 21)

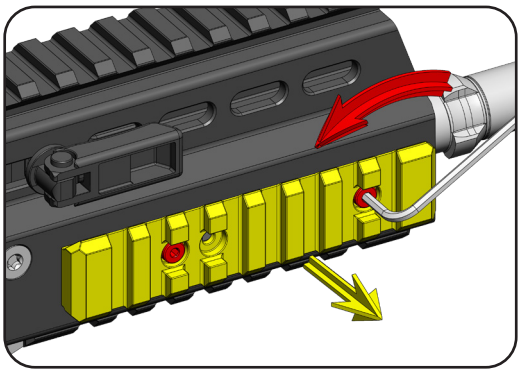


REMARK!	
ⓘ	Never tension the upper receiver in the area of the ejection window.

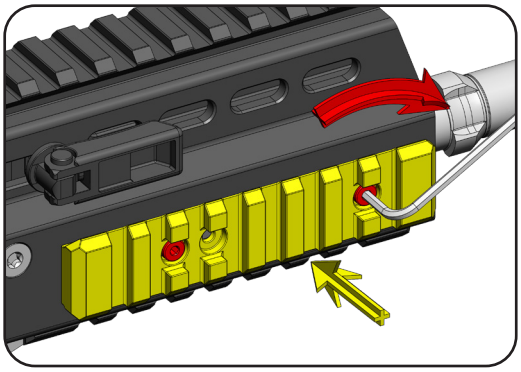
9.3 Measures on the upper receiver

9.3.1 Changing the side rails

a. Disassemble the weapon.
   » Operator Manual.
   » If the rails are mounted via the M-Lok interface, the rails can be removed according to the M-Lock instructions
b. Use a 2mm Allen key to remove the rail screws.
c. Remove the rail from the upper receiver
d. Remove dirt or foreign particles, replace worn parts.

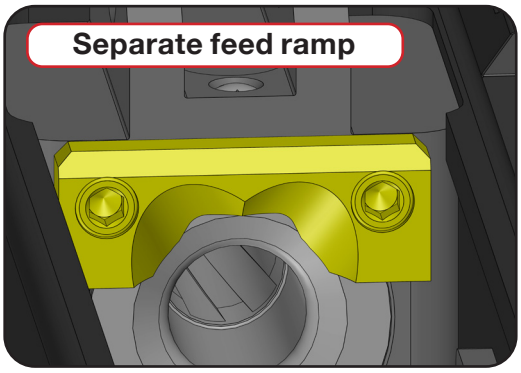


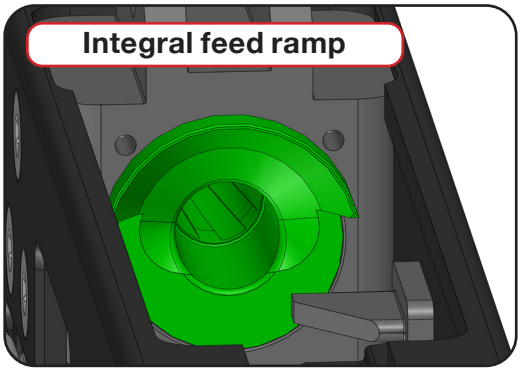
e. Clean the thread holes for the rail screws from all thread locker residue and degrease them.
f. Degrease the rail screws
g. Apply a little amount of medium strength thread locker (e.g. Loctite 243) on the screw thread
h. Place the rail on the upper receiver
i. Install the rail screws using a 2mm Allen key and tighten them hand tight



9.3.2 Differentiation of the feed ramps

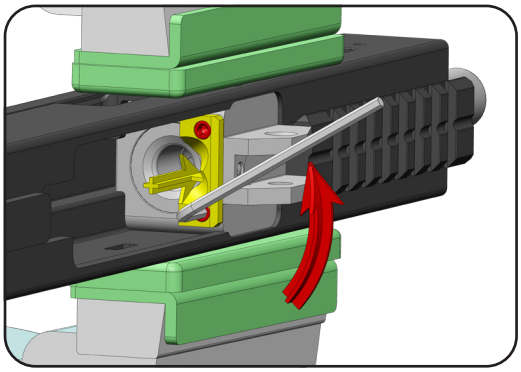
There are two different versions of the feed ramp for the APC9/10/40/45:
   » Feed ramp as a separate part
   » Feed ramp integral to the barrel





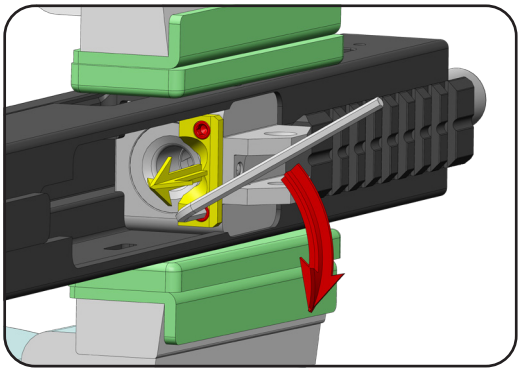
9.3.3 Changing the separate feed ramp

a. Disassemble the weapon.
   » Operator Manual.
b. Clamp the upper receiver in a vice upside down.
c. Heat ramp screws wit a heat gun to break the thread locker.
d. Use a 2mm Allen key to remove the ramp screws.
e. Remove the ramp from the upper receiver.
f. Remove dirt or foreign particles, replace worn parts.

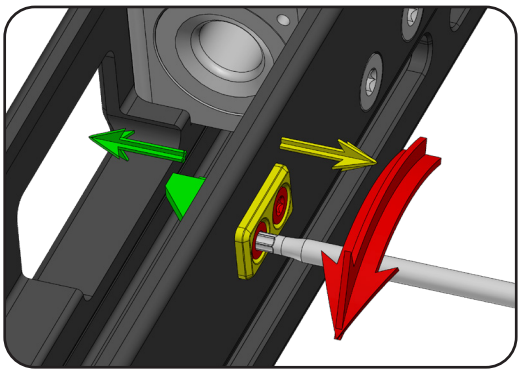


REMARK!	
	It is highly recommended to use new ramp screws for re installation of the ramp.

g. Clean the thread holes for the ramp screws from all thread locker residue and degrease them.
h. Degrease the two ramp screws.
i. Apply a little amount of medium strength thread locker (e.g. Loctite 243) on the screw thread and the thread in the barrel block.
j. Place the ramp on the barrel block.
k. Install the ramp screws using a 2mm Allen key and tighten them hand tight. (ca. 1 Nm)

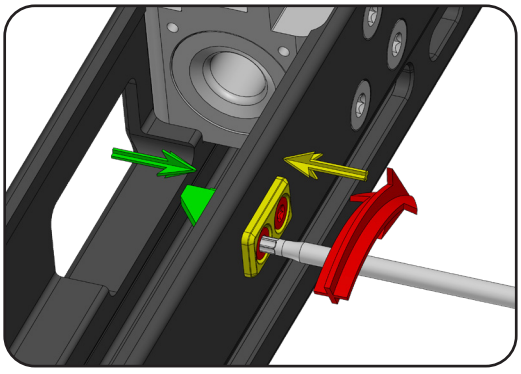


9.3.4 Changing the ejector



a. Disassemble the weapon.
   » Operator Manual.
b. Clamp the upper receiver in a vice.
c. Heat ejector screws wit a heat gun to break the thread locker.
d. Use a TORX key (TX 10) to remove the ejector screws.
e. Remove the ejector plate and the ejector from the upper receiver.
f. Remove dirt or foreign particles, replace worn parts.

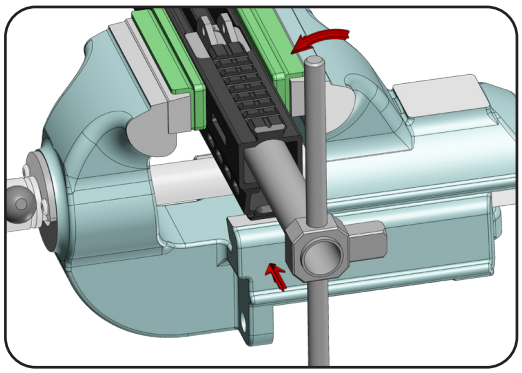
REMARK!
It is highly recommended to use new ejector screws for re installation of the ejector



g. Clean the thread holes in the ejector from all thread locker residue and degrease them.
h. Degrease the two ejector screws.
i. Apply a little amount of medium strength thread locker (e.g. Loctite 243) on the screw thread and the threads in the ejector.
j. Place ejector and the ejector plate in the upper receiver
k. Install the ejector screws using a torx key (TX 10) and tighten them hand tight. (ca. 1 Nm)

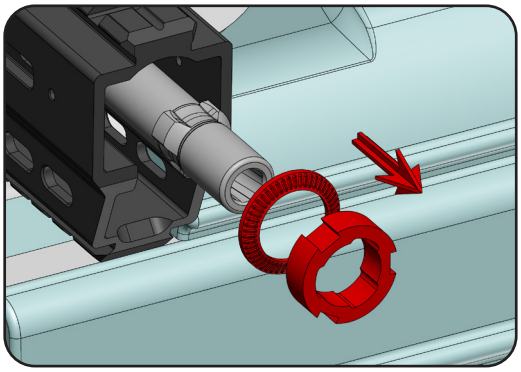
9.3.5 Changing the standard barrel

a. Disassemble the weapon.
   » Operator Manual.
b. Remove the ejector (see chapter 9.3.4 on page 23).
c. If a separate feed ramp is installed in the upper housing (see chapter 9.3.2 on page 21), this must be removed (see chapter 9.3.3 on page 22), otherwise, if an integral feed ramp is installed, this step can be skipped.
d. Clamp the upper receiver in a vice.
e. Heat barrel nut wit a heat gun to break the thread locker.
f. Use the B&T barrel wrench to loosen the barrel nut.

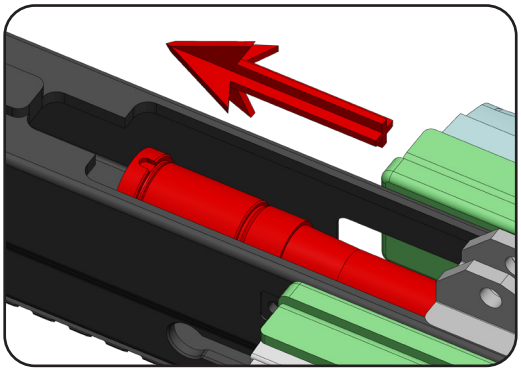


SAFETY-REMARK!	
⚠	Don't use the torque wrench as a handle for loosening, it could be damaged Always use the two handles on the barrel wrench for loosening.

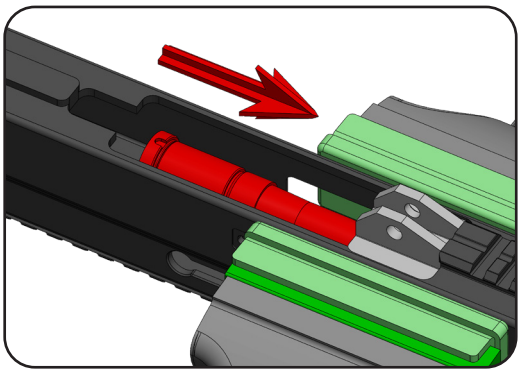
g. Remove the barrel nut and its washer towards the front of the upper receiver.



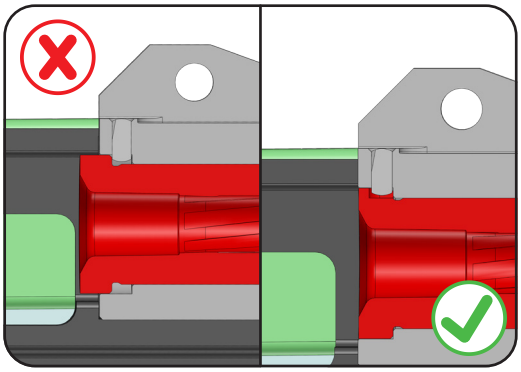
h. Remove the barrel from the upper receiver towards the rear.
i. Remove dirt or foreign particles, replace worn parts.



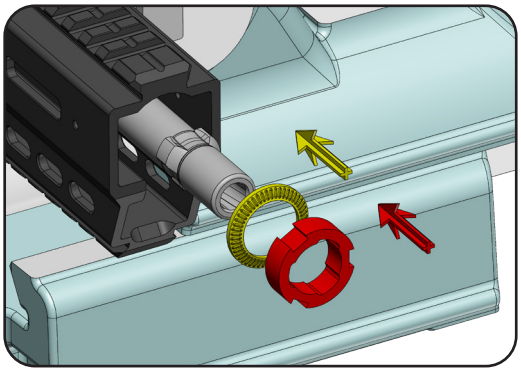
j. Clean the thread on the barrel from all thread locker residue and degrease it.
k. Insert the barrel into the upper receiver from the rear

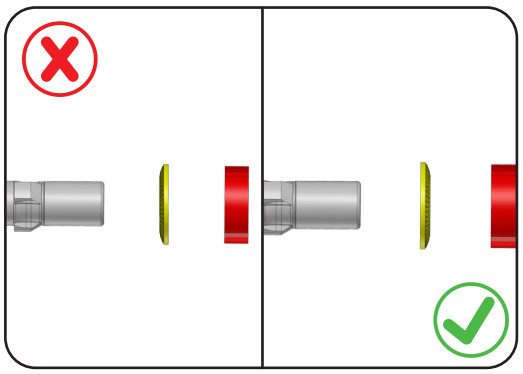


l. Make sure that the barrel has reached the end position. if necessary, the barrel must be turned slightly so that the groove on the barrel enters the pin on the barrel block.

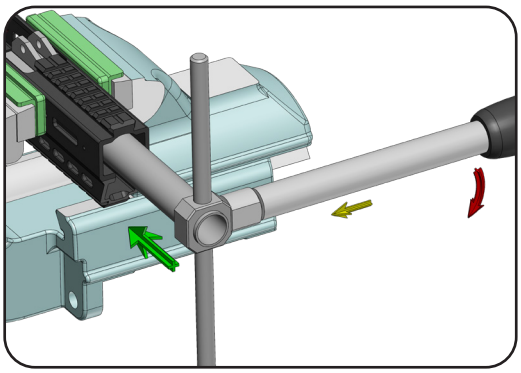


m. Clean the thread of the barrel nut from all thread locker residue and degrease it.
n. Apply a little amount of high strength thread locker (e.g. Loctite 603) on the thread of the barrel nut
o. Insert the barrel washer and the barrel nut into the upper receiver from the front.
   » Ensure that the ribbed washer is installed in the correct orientation. (doming against the nut)



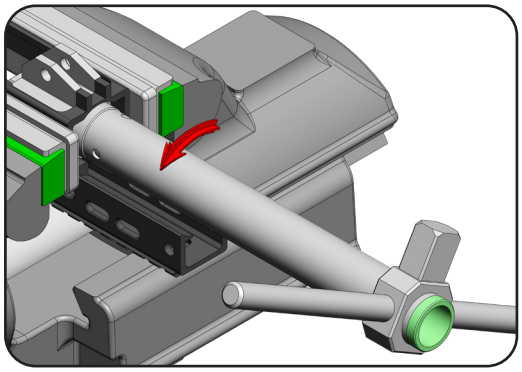


p. Use the B&T barrel wrench to tighten barrel nut.
q. Install the torque wrench on the barrel wrench and then tighten the barrel nut with 50 Nm.
r. Reinstall the ejector. (see chapter 9.3.4 on page 23).
s. Reinstall the feed ramp, if present. (see chapter 9.3.3 on page 22)



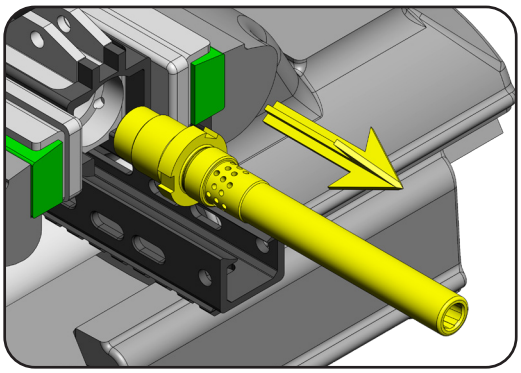
9.3.6 Changing the silenced barrel

a. Disassemble the weapon.
   » Operator Manual.
b. Clamp the upper receiver in a vice.
c. Heat barrel block with a heat gun to break the thread locker.
d. Use the B&T barrel wrench to loosen the barrel.

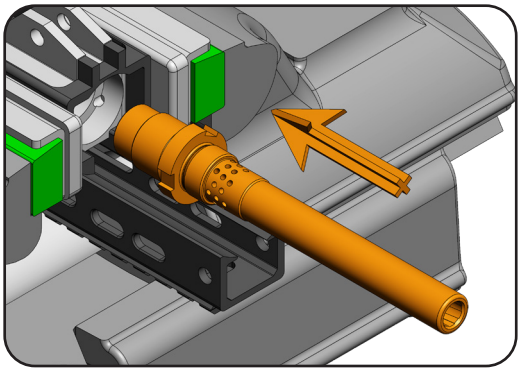


SAFETY-REMARK!	
⚠	Don’t use the torque wrench as a handle for loosening, it could be damaged Always use the two handles on the barrel wrench for loosening.

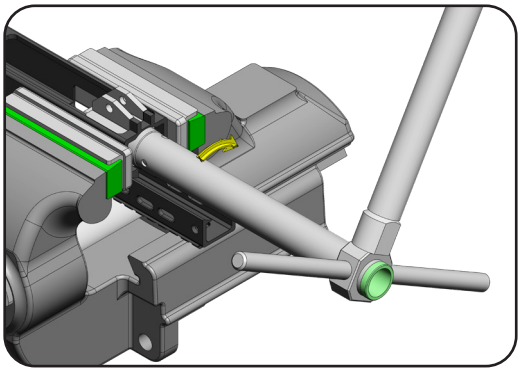
e. Remove the barrel from the upper receiver towards the front.
f. Remove dirt or foreign particles, replace worn parts.
g. Clean the thread on the barrel and the thread on the barrel block in the receiver from all thread locker residue and degrease it.
h. Apply a little amount of high strength thread locker (e.g. Loctite 603) on the threads of the barrel and the barrel block



i. Screw the barrel into barrel Block from the front.



j. Use the B&T barrel wrench to tighten barrel nut.
k. Install the torque wrench on the barrel wrench and then tighten the barrel with 50 Nm.

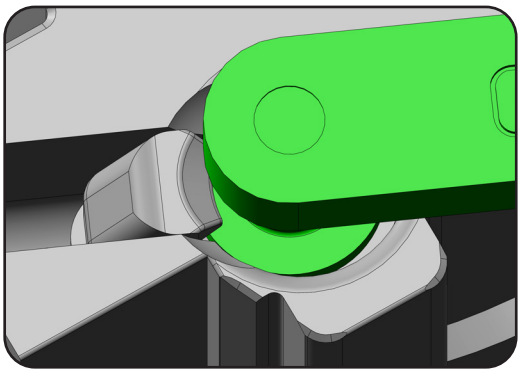


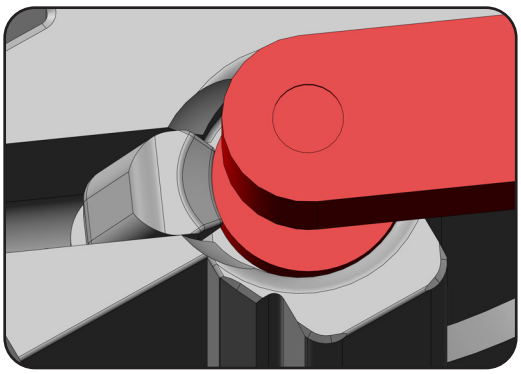
10. Inspections and measures on the bolt

10.1 Inspections

10.1.1 Inspecting the extractor

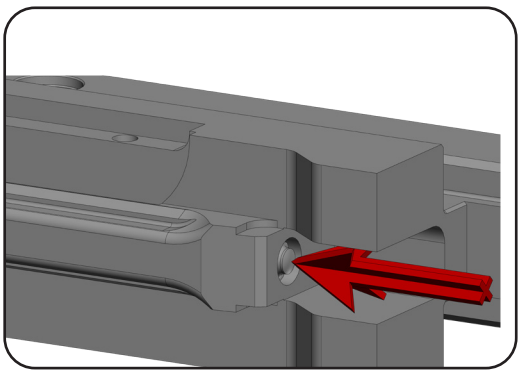
a. Disassemble the weapon.
   » Operator Manual.
b. Visually inspect the extractor for wear and replace if necessary. (see chapter 10.2.1 on page 29)
c. Use the extractor gauge (see chapter 6 on page 16) to check the distance between the extractor and the bolt face plate:
   » GO side must fit under extractor claw.
   » NO-GO side must not.
d. If check is not successful, clean parts and check again.
e. If the check is still not satisfied, the extractor must be replaced.



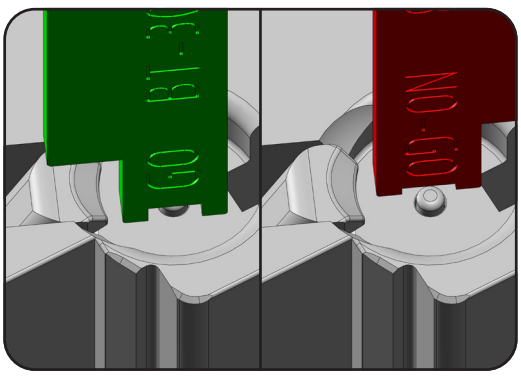


10.1.2 Inspecting the firing pin

a. Disassemble the weapon.
   » Operator Manual.
b. Press the firing pin into the bolt body and keep it pressed during the test.
c. Inspect the tip of the firing pin for wear and damage, replace if necessary. (see chapter 10.2.2 on page 31)



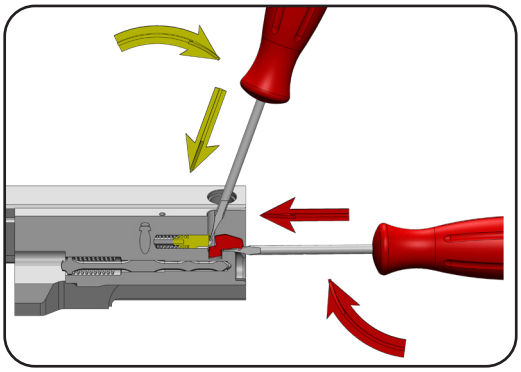
d. Using the firing pin gauge (see chapter 6 on page 16) , check the firing pin protrusion.
   » The GO side must slide over the tip of the protruding firing pin.
   » The NO-GO side must not.
e. If check is not successful, replace firing pin (see chapter 10.2.2 on page 31)



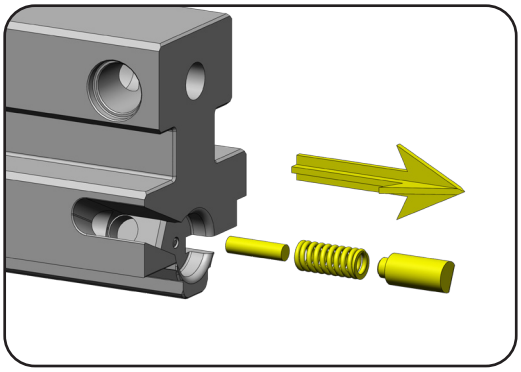
10.2 Measures on the bolt

10.2.1 Changing the extractor

a. Disassemble the weapon.
   » Operator Manual.
b. Insert a screw driver (Size 0) through the extractor notch, between the extractor and the extractor plunger, and push the Plunger backwards. (yellow)
c. Insert a screw driver (Size 0) underneath the extractor, between the extractor and the bolt, and push the extractor upwards backwards. (red)

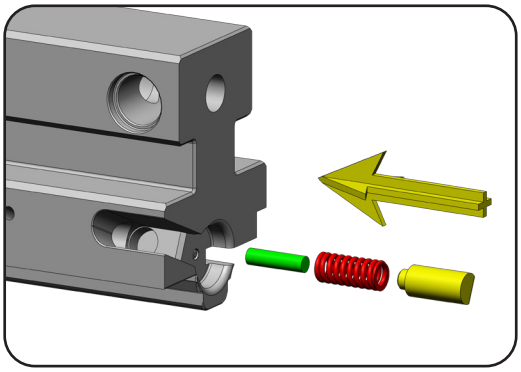


SAFETY-REMARK!	
⚠	The extractor is under tension, in case of careless handling it can pop out it is lifted upwards.

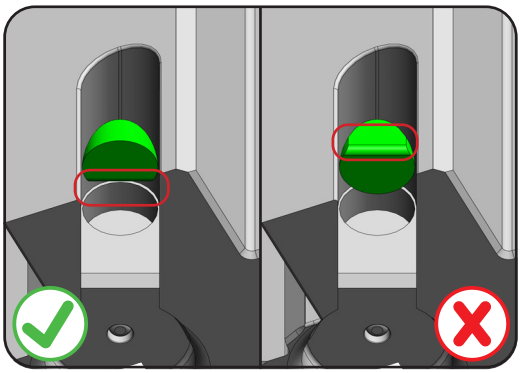


d. Remove the extractor plunger, the extractor spring and the shock buffer from the Bolt.
e. Remove dirt or foreign particles, replace worn parts.

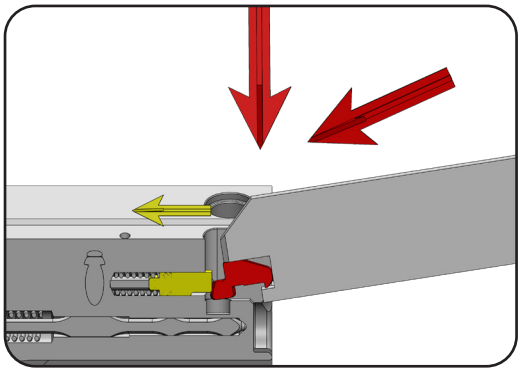
f. Insert the extractor plunger, the extractor spring and the shock buffer into the bolt.



g. Make sure that the extractor plunger is fith the flat face in the direction of the firing pin.



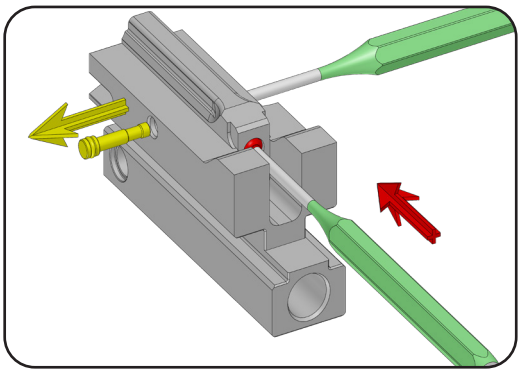
h. Place the extractor in the mounting tool. (BT-36197)
i. Insert the extractor in the groove and press it with the tool in the direction of the firing pin and simultaneously to the back (red) until it snaps in place.
   » The extractor spring is preloaded by the extractor plunger. (yellow)



SAFETY-REMARK!	
	The extractor is under tension, in case of careless handling it can pop out while mounting.

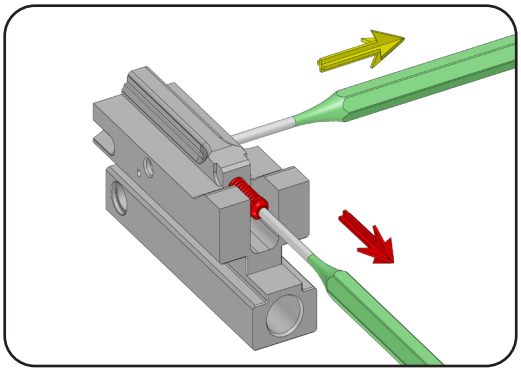
10.2.2 Changing the firing pin

a. Disassemble the weapon.
   » Operator Manual.
b. Use a 4mm Punch to press on the firing pin from the back. (red)
c. Use a 3mm punch to press out the firing pin retainer (yellow) leave the 3mm Punch in place.

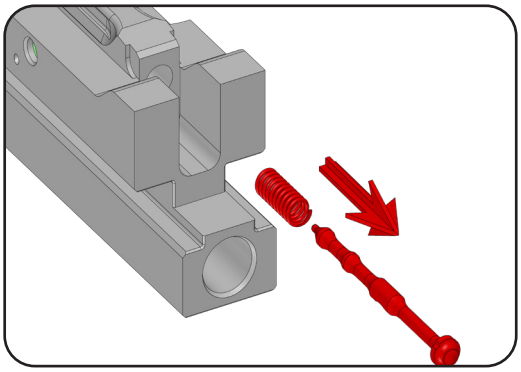


d. Remove the 3mm punch (yellow) while securing the firing pin with the 4mm punch.

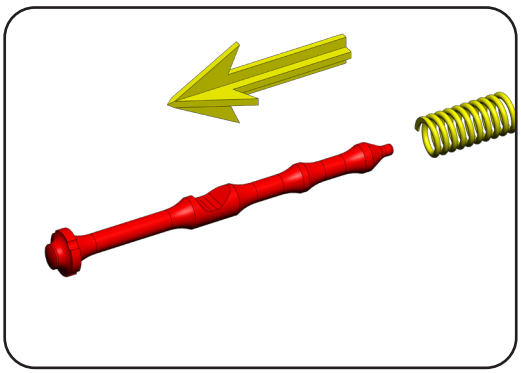
SAFETY-REMARK!	
⚠	The firing pin is under tension, in case of careless handling it can pop out when the 3mm punch is removed.



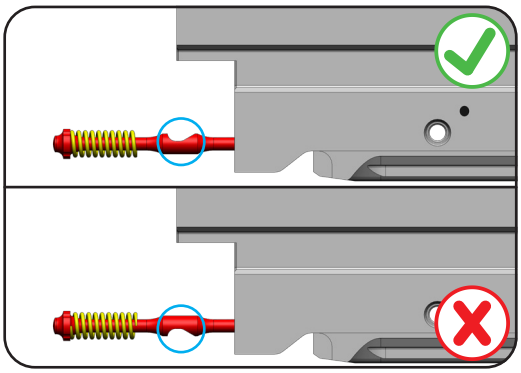
e. Remove the firing pin and the firing pin spring.
f. Remove dirt or foreign particles, replace worn parts.



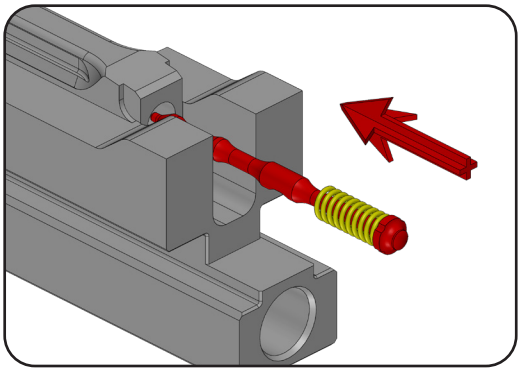
g. Insert the firing pin spring on the firing pin. (yellow)



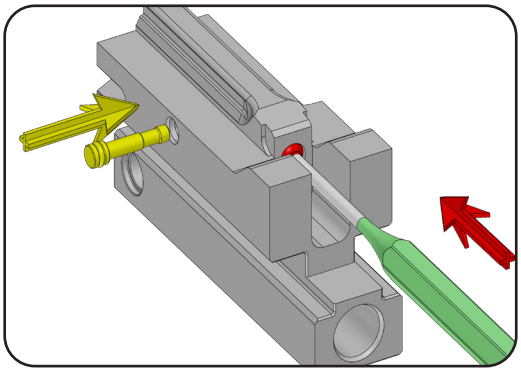
h. Place the firing pin in the firing pin hole.
   » Make sure that the cutout in the firing pin is pointing upwards when looking from the side of the bolt, before inserting it into the hole.



i. Insert the firing pin into the bolt.



j. Use a 4mm punch to press on the firing pin from the back and hold the pressure. (red)
k. Insert the firing pin retainer into the bolt until it is flush with the side of the bolt. (yellow)



REMARK!	
ⓘ	If strong resistance is felt when inserting the pin, the firing pin could be twisted and therefore no longer in the correct orientation. In this case, remove the firing pin again and correct the orientation.

11. Inspections and measures on the magazine

11.1 Inspections on the magazine

a. Visually check the magazine for severe fouling.
   » Clean if necessary.
b. Visually inspect the magazine for cracks or breaks.
   » If present, replace the magazine.
c. Check the follower for free movement in the magazine body by pressing it down.
d. Insert the magazine into the disassembled lower receiver.
   » The magazine must be able to be inserted without resistance.
   » The magazine must lock in the magazine retainer.
   » If one of the two conditions is not met, repeat with other magazines. If the result is the same, check the lower receiver, if it works with the other magazines, suspend the first magazine for use.

11.2 Measures on the magazine

11.2.1 Measures on Glock and SIG Magazines

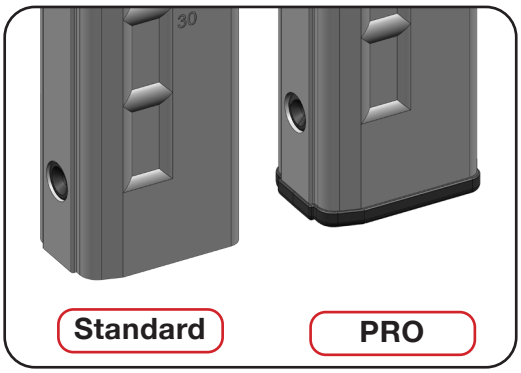
If magazines from third-party manufacturers are used, the maintenance of the magazines must be carried out in accordance with the operating instructions of the third-party manufacturer.

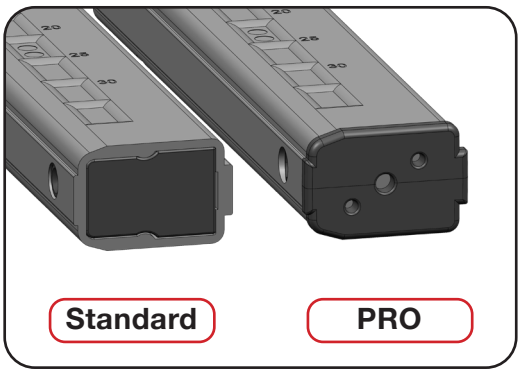
SAFETY-REMARK!	
	The magazine spring and base plate are under high tension and may pop out. Cover the magazine base and lower magazine opening by hand during the entire disassembly process.

11.2.2 Distinction of the B&T magazines

B&T Standard magazines and B&T PRO magazines are disassembled differently, therefore it is important to check first which magazine type it is.

» If a bumper is mounted on the magazine, it must be removed first.

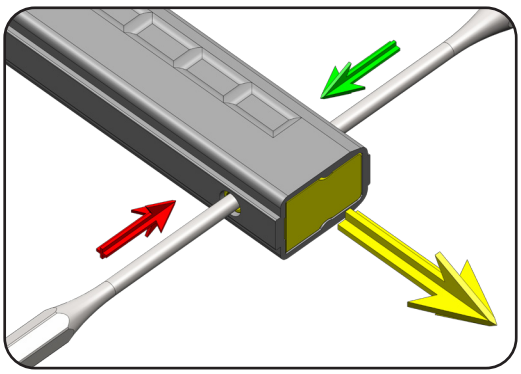




11.2.3 Measures on the B&T Standard magazine

a. Use a two punches (4mm & 5mm) to press in the latches of the magazine floor plate. (red and green)

» Secure the magazine floor plate with the thumb to prevent it from pop out.

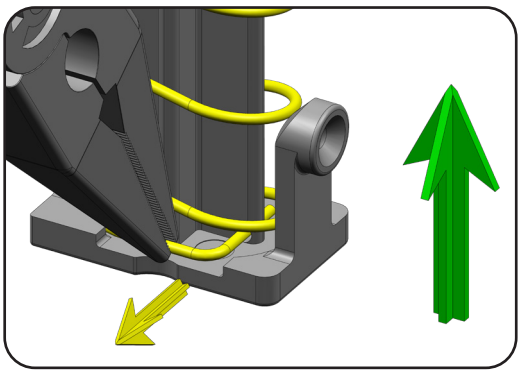


SAFETY-REMARK!	
⚠	The magazine floor plate is under high tension and may pop out, when not handled carefully.

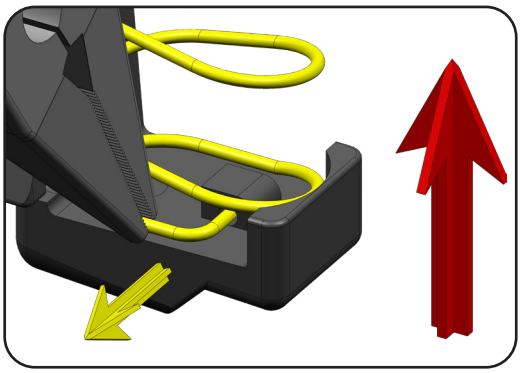
b. Remove the magazine floor plate. (yellow)

c. Using needle-nose pliers, remove the cranked end of the magazine spring from the hole in the magazine base. (yellow)

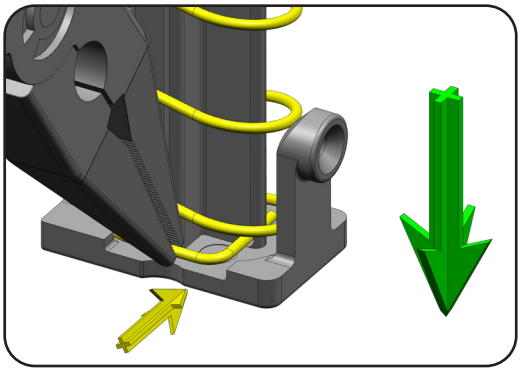
d. Remove the magazine spring from the magazine floor plate. (green)



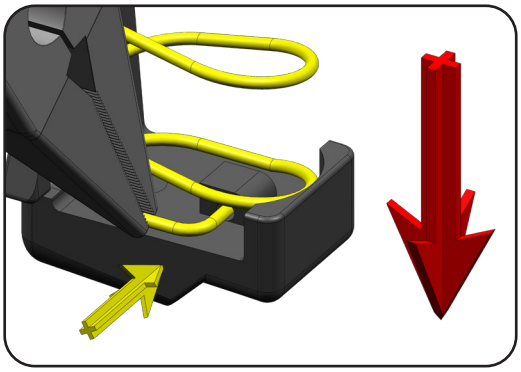
e. Using needle-nose pliers, remove the cranked end of the magazine spring from the hole in the magazine follower. (yellow)
f. Remove the magazine spring from the magazine follower. (red)
g. Remove dirt or foreign particles, replace worn parts.



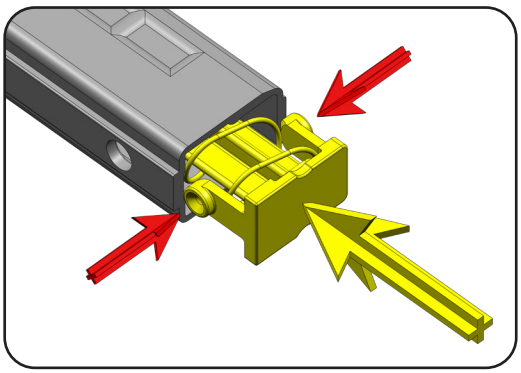
h. Insert the magazine spring into the magazine floor plate. (green)
i. Using needle-nose pliers, insert the cranked end of the magazine spring into the hole of the magazine base. (yellow)



j. Insert the magazine spring into the magazine follower. (red)
k. Using needle-nose pliers, insert the cranked end of the magazine spring into the hole of the magazine follower. (yellow)



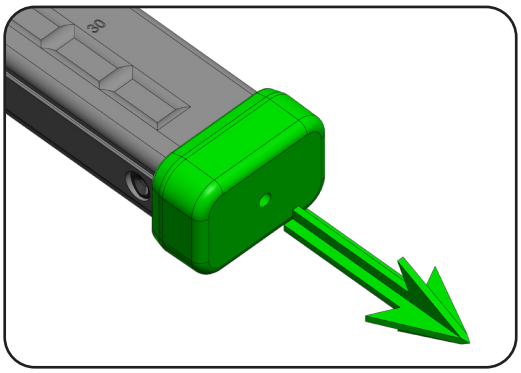
l. Slide the pre-assembled follower, magazine spring and floor plate into the base body
m. Push on the two latches of the floor plate (red) to insert it into the magazine body (yellow) and push it in until they snap in audibly in place.



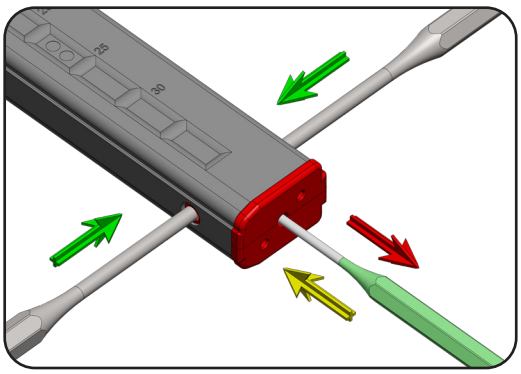
SAFETY-REMARK!	
⚠	The magazine floor plate is under high tension and may pop out, when not handled carefully.

11.2.4 Measures on the B&T PRO magazine

a. Remove the bumper from the magazine body
   » If no bumper is mounted the step can be skipped



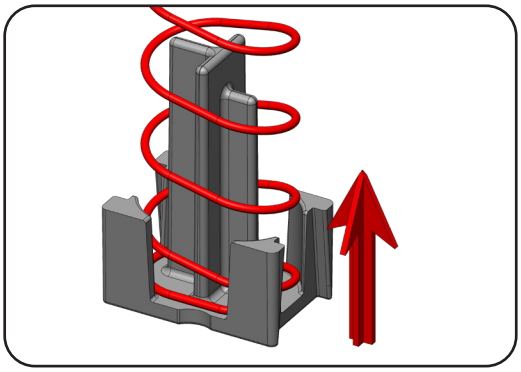
b. Use a punch to press in the floor plate lock through the magazine floor plate. (yellow)
c. Use two punches (4mm & 5mm) to press in the latches of the magazine floor plate (green)
   » Secure the magazine floor plate with the thumb to prevent it from pop out



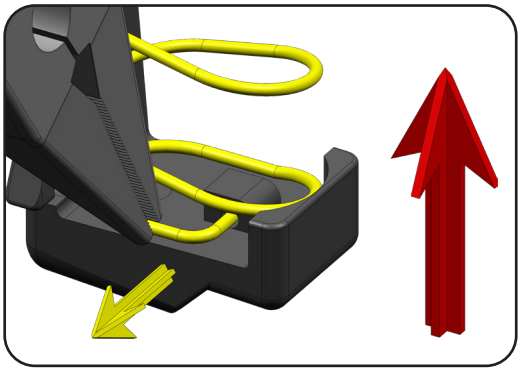
SAFETY-REMARK!	
⚠	The magazine floor plate lock is under high tension and may pop out, when not handled carefully.

d. Remove the magazine floor plate and the floor plate lock. (red)

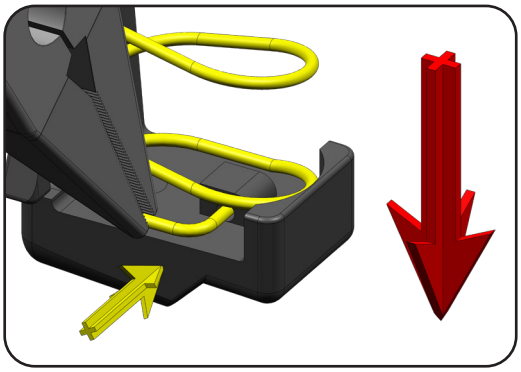
e. Remove the magazine spring from the magazine floor plate. (red)



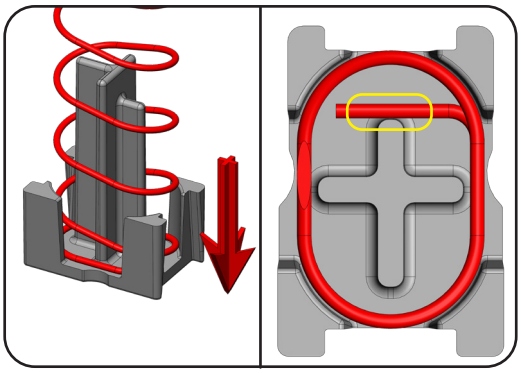
f. Using needle-nose pliers, remove the cranked end of the magazine spring from the hole in the magazine follower. (yellow)
g. Remove the magazine spring from the magazine follower. (red)
h. Remove dirt or foreign particles, replace worn parts.



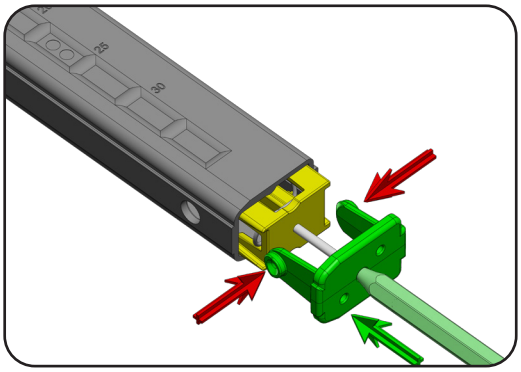
i. Insert the magazine spring into the magazine follower. (red)
j. Using needle-nose pliers, insert the cranked end of the magazine spring into the hole of the magazine follower. (yellow)



k. Insert the magazine spring into the magazine floor plate lock. (red)
   » make sure to insert it in the correct way. (cranked end of the spring)



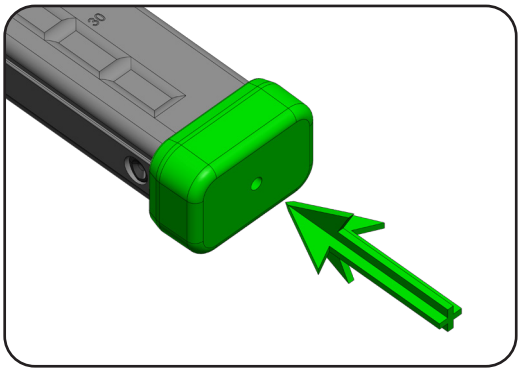
l. Slide the pre-assembled follower, magazine spring and floor plate lock into the base body.
m. Put the magazine floor plate on a 3mm punch
n. Push in the floor plate lock (yellow) with the punch into the magazine body.

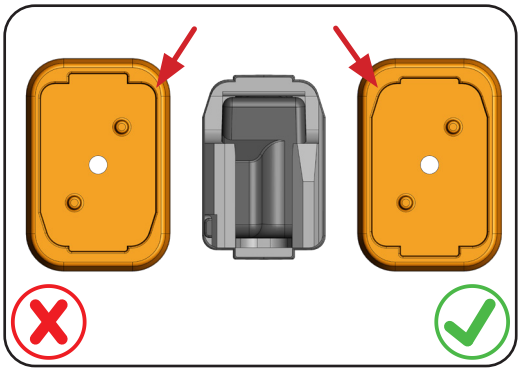


SAFETY-REMARK!	
⚠	The magazine floor plate lock is under high tension and may pop out, when not handled carefully.

o. Push on the two latches of the floor plate (red) to insert it into the magazine body (green) and push it in until they snap in audibly in place.

p. Slide the bumper on the magazine body.
   » Make sure that tapered end of the cutout is towards the front of the magazine





12. Inspections and measures on lower receiver

12.1 Inspections

12.1.1 General inspections on magazine retainer and bolt catch

a. Disassemble the Weapon.
   » Operator Manual.
b. Visually check the lower receiver for heavy dirt accumulation.
   » Clean if necessary.
c. Visually inspect the lower receiver for cracks or fractures.
   » Replace if existing.
d. Visually inspect the handle for rust.
   » If present, replace the respective parts.
e. Try to pull out the take down pins to the right.
   » The take down pins should be held in the receiver.
f. Push the take down pins in to the left.
   » It should be possible to push the take down pins in completely with a minimum of force.
g. Press the bolt catch upwards at the front lug and at each of the two knobs and release it again.
   » It should be possible to move the bolt catcher slightly upwards.
   » The bolt catch should return automatically to the bottom end position.
h. Press the magazine knob on the right and left in sequence.
   » It should be possible to move the magazine retainer to the right and left end positions.
   » The magazine nose should no longer protrude into the magazine chute in the end position.
i. Insert an empty magazine.
   » It should be possible to insert the magazine smoothly.
   » The magazine should engage in the magazine retainer.
   » The slide catch should be pushed up by the follower in the magazine.
j. Press the magazine knob on the right.
   » The magazine should be released and fall out.
k. Load and insert a magazine with a dummy cartridge / manipulating cartridge.
   » The follower should not push up the bolt catch.
l. Press the magazine knob on the left.
   » The magazine should be released and fall out.

12.1.2 Inspection on a semi auto trigger

a. Move the fire selector lever to both positions and back.
   » The fire selector lever should move smoothly.
   » The fire selector lever should engage audibly in both positions.
b. Set the fire selector lever to single fire, place the thumb on the hammer. Pull the trigger and hold it pulled, guiding the hammer forward.
   » The hammer should be released by the trigger.
   » The hammer should move to the forward end position without sticking.

c. With the trigger pulled, push the hammer backward.
   » The hammer should engage in the disconnector.
d. Release the trigger.
   » The hammer should slide from the disconnector rest into the trigger rest and be held there.
e. Set the fire selector lever to safe, pull the trigger.
   » The trigger should move smoothly, up to the break point.
   » The trigger should not release the hammer.

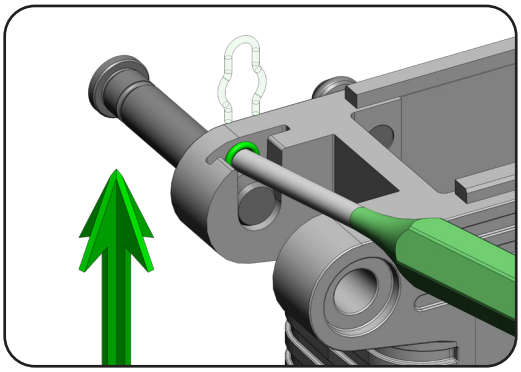
12.1.3 Inspection on a full auto trigger

a. Move the fire selector lever all positions and back.
   » The fire selector lever should move smoothly.
   » The fire selector lever should engage audibly in all positions.
b. Set the fire selector lever to single fire, place the thumb on the hammer. Press the release lever.
   » The hammer should slide from the sear notch into the trigger notch and be held there.
c. Pull the trigger and hold it pulled, guiding the hammer forward.
   » The hammer should be released from the trigger.
   » The hammer should move to the front end position without sticking.
d. With the trigger pulled, push the hammer backward.
   » The hammer should engage on the sear notch.
e. With the trigger pulled, operate the release lever.
   » The hammer should slide from the sear notch into the disconnector notch and be held there.
f. Release the trigger.
   » The hammer should slide from the disconnector notch into the trigger notch and be held there.
g. Set the fire selector lever to full auto, place the thumb on the hammer and pull the trigger.
   » The hammer should be released from the trigger.
h. With the trigger pulled, push the hammer back.
   » The hammer should engage on the sear notch.
i. With the trigger pulled, place the base of the thumb on the hammer and operate the release lever with the tip of the thumb, guiding the hammer forward.
   » The hammer should be released.
j. Release the trigger, set the fire selector lever to safe, cock the hammer, push the release lever and then pull the trigger.
   » The trigger should move smoothly, up to the break point.
   » The trigger should not release the hammer.

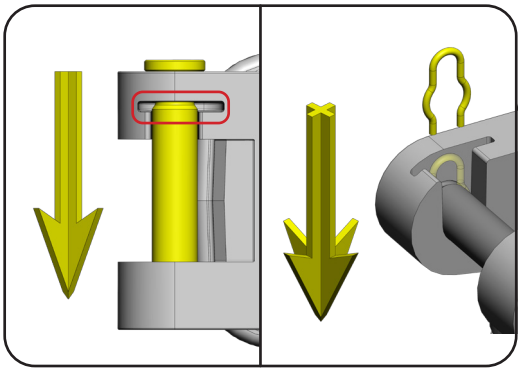
12.2 Measures

12.2.1 Changing the take down pins

a. Disassemble the weapon.
   » Operator Manual.
b. Use a 3mm punch to remove the take down pin springs. (green)
c. Remove the take down pin
d. Remove dirt or foreign particles, replace worn parts.

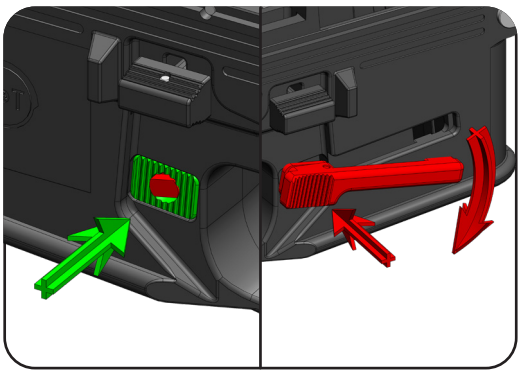


e. Insert the take down pin completely into the recevier so that the grooves in the take down pin and receiver are aligned with each other.
f. Insert the spring for the take down pin into the groove from above.
g. Press the spring down until it engages in the groove on the take down pin.

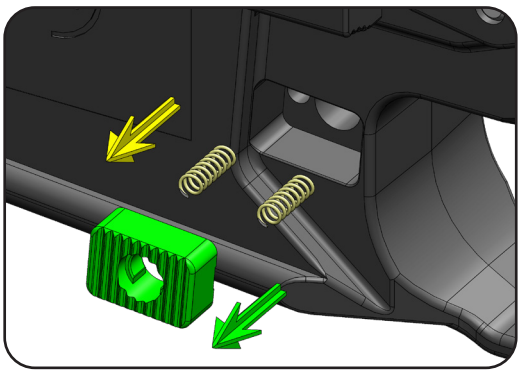


12.2.2 Changing the B&T magazine retainer

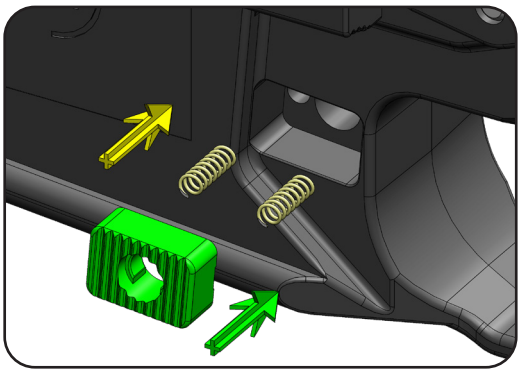
a. Press the magazine retainer knob (left side) all the way in and hold it in this position (green).
b. Press in the magazine retainer and lift it slightly at the front end. At the same time, turn it downward by 90 degrees. (red)



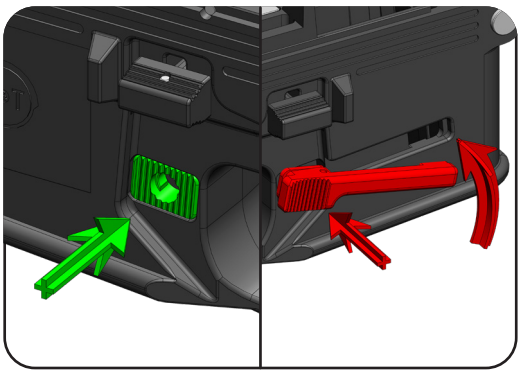
c. Remove the magazine retainer knob (green) and its reset springs (yellow).
d. Remove dirt or foreign particles, replace worn parts.



e. Insert the magazine retainer reset springs into the receiver. (yellow)
f. Insert the magazine retainer knob into the receiver. (green)



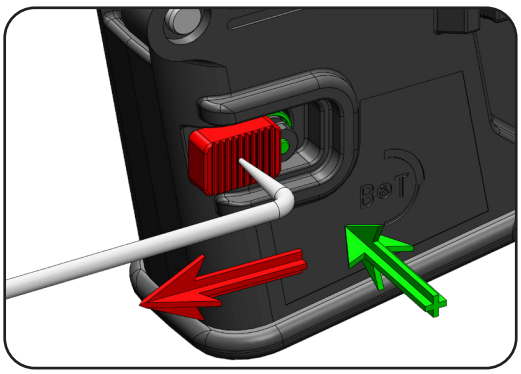
g. Press and hold the magazine retainer knob. (green)
h. Insert with the front en down into the receiver. (red)
i. While lifting the magazine retainer slightly at the front end, turn it upwards by 90 degrees, until it reaches the horizontal end position. (red)



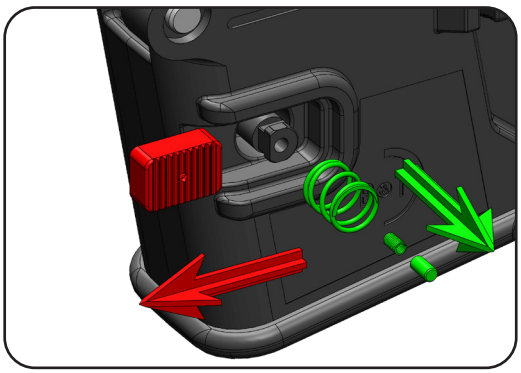
12.2.3 Changing the Glock/SIG magazine retainer

a. Press in the parallel pin which is securing the left magazine retainer knob with a pointy tool, and hold it. (green)
b. Slide the magazine retainer knob forward of the magazine retainer. (red)

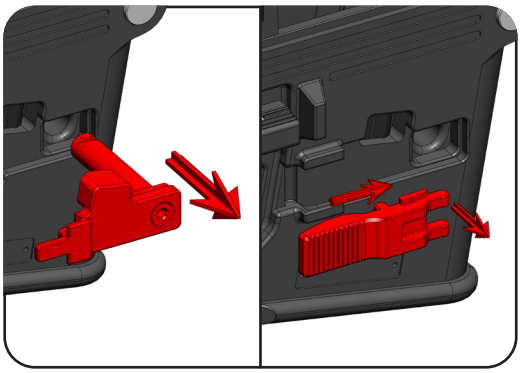
SAFETY-REMARK!	
⚠	There are Springs under the parallel pin and the magazine retainer knob both which can pop out during disassembly. Cover them with the thumb during the disassembly process.



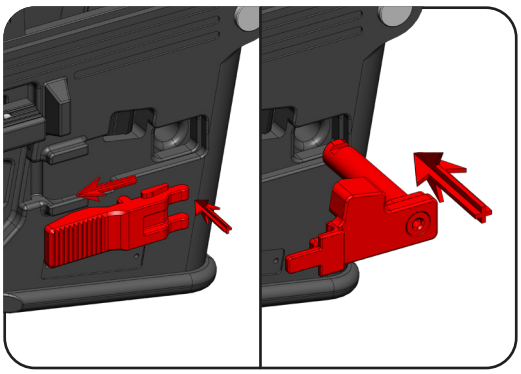
c. Slide the magazine retainer knob all the was out of the magazine retainer. (red)
d. Take out both springs and the parallel pin (green)



e. Slide out the magazine retainer.
f. Remove right magazine retainer knob. (forward and sideways out)
g. Remove dirt or foreign particles, replace worn parts

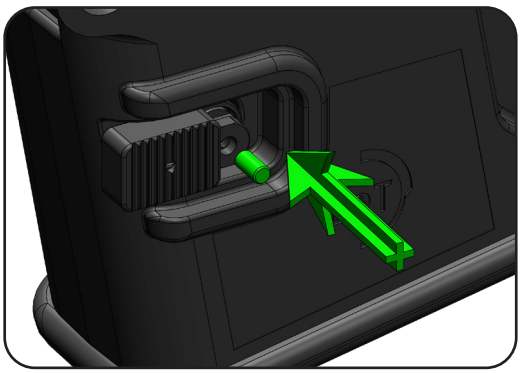


h. Insert right magazine retainer knob. (sideways in and backwards)
i. Insert the magazine retainer.

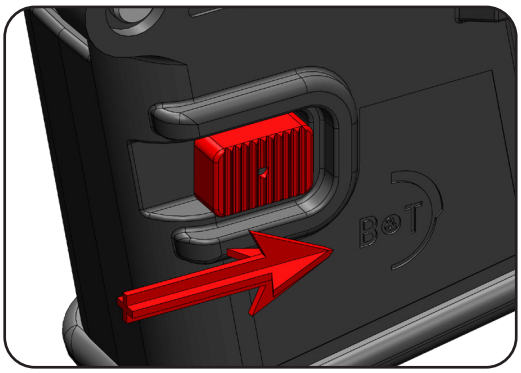


j. Insert the magazine retainer spring and the spring for the parallel pin.

k. Slide the magazine retainer knob half way on to the magazine retainer, preloading the magazine retainer Spring.
l. Before the magazine retainer knob covers the hole insert the parallel pin into it.

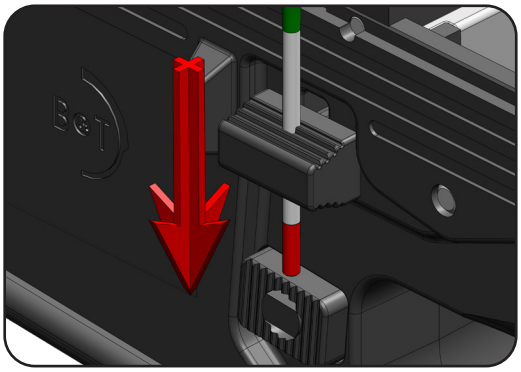


m. Slide the magazine retainer knob all the way onto the magazine retainer.
   » The securing pin shall snap audibly in place.

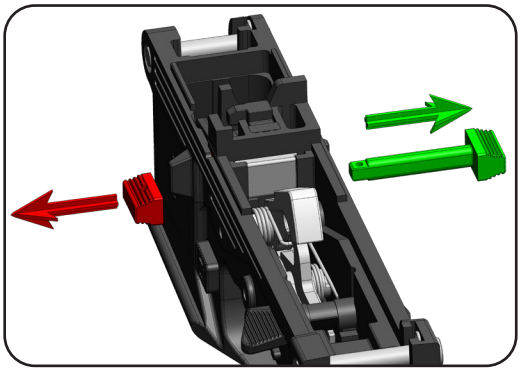


12.2.4 Changing the bolt catch (B&T)

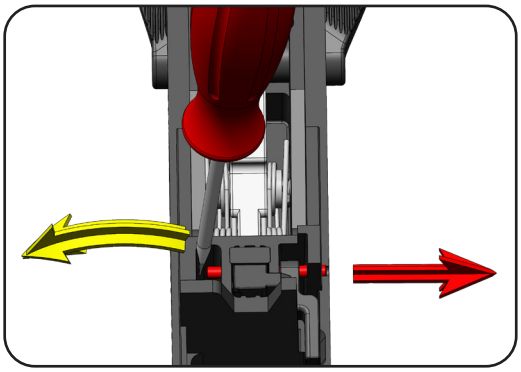
a. Remove the parallel Pin on the bolt catch knob with a 1.5mm Punch.



b. Remove both (green & red) bolt catch knobs.

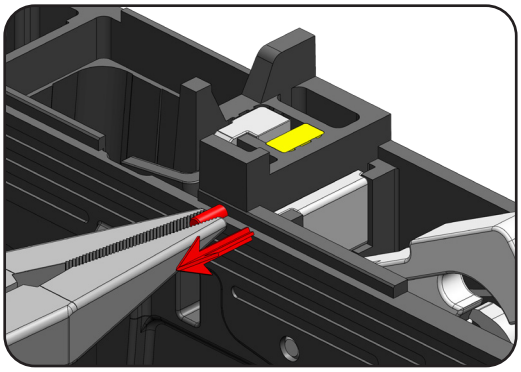


c. Use a screw driver to reach behind the parallel pin holding the spring retainer (red). Tilt the screw driver sideways (yellow) to move the parallel pin out as far as possible. (red)

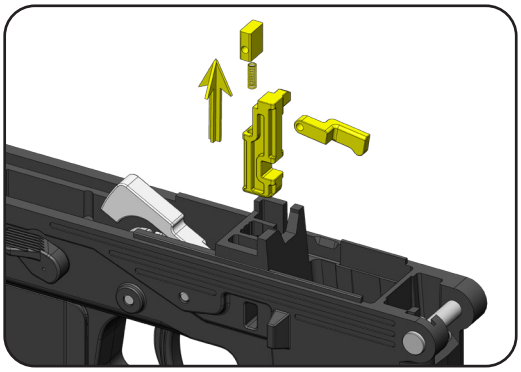


d. Use needle-nose pliers to pull the parallel pin all the way out.

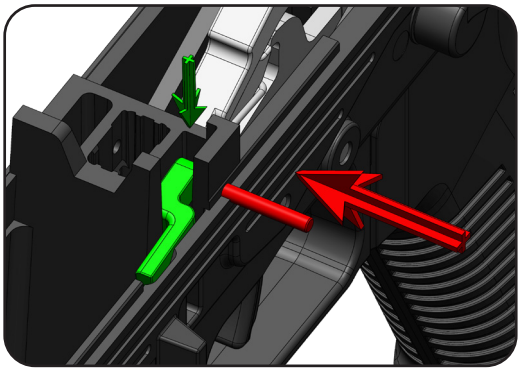
SAFETY-REMARK!	
⚠	MAKE SURE TO HOLD THE SPRING RETAINER (YELLOW) DOWN WHILE PULLING, OTHERWISE IT WILL POP OUT.



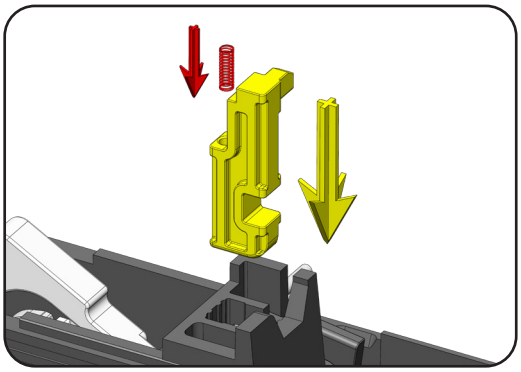
e. Remove the bolt catch, the bolt catch lever, the bolt catch spring retainer and the bolt catch reset spring. (yellow)
f. Remove dirt or foreign particles, replace worn parts.



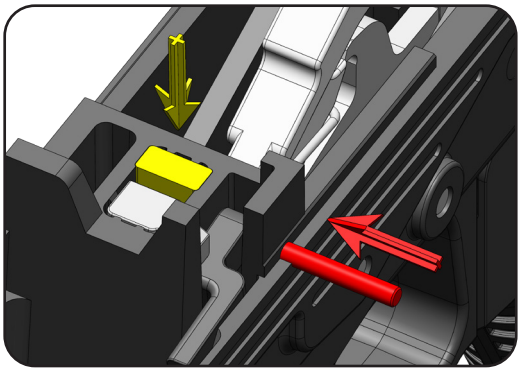
g. Insert the bolt catch lever from the top into the receiver. (green)
h. Insert the parallel pin from the left side half way into the receiver.
   » Make sure that the pin is properly positioned in the hole on the bolt catch lever.
   » Make sure that the pin does not protrude in the channel for the bolt catch.



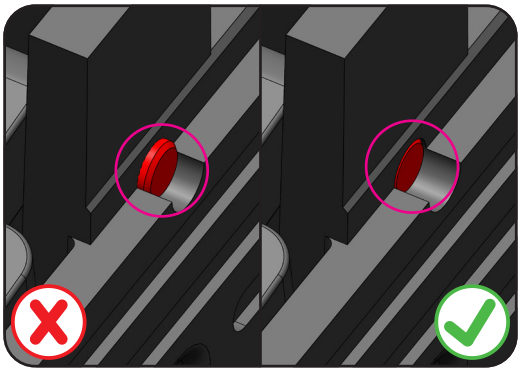
i. Insert the bolt catch (yellow) and the bolt catch reset spring (red) from the top into the receiver.



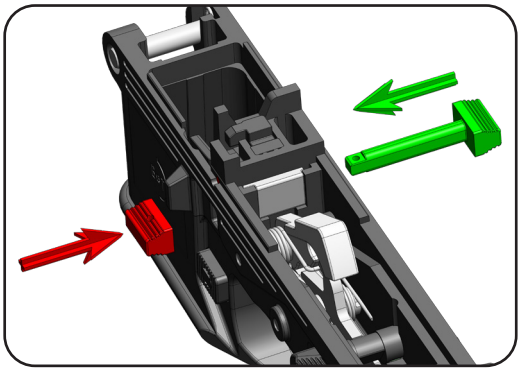
j. Insert the bolt catch spring retainer from the top into the receiver and hold down on it. (yellow)
k. Push the parallel pin from the right side all the way into the receiver.



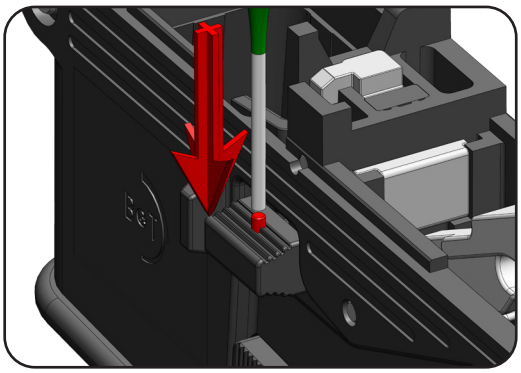
l. Make sure that the Parallel pin is seated all the way in the receiver.
m. Pull the front tip of the bolt catch lever upwards. (as the magazine follower would do)
   » The bolt catch should move freely upwards and return to its original position (by its return spring) after the bolt catch lever is being released.



n. Insert both (green & red) bolt catch knobs into the receiver.

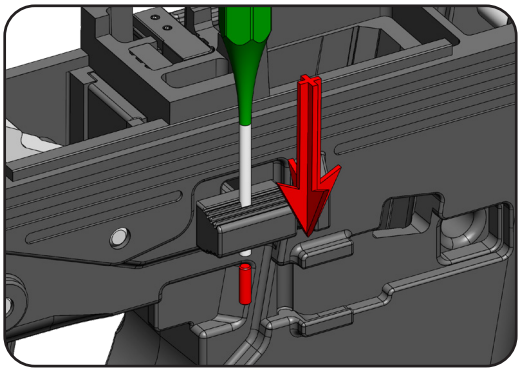


o. Insert the parallel pin on the left bolt catch knob with a 1.5mm Punch.

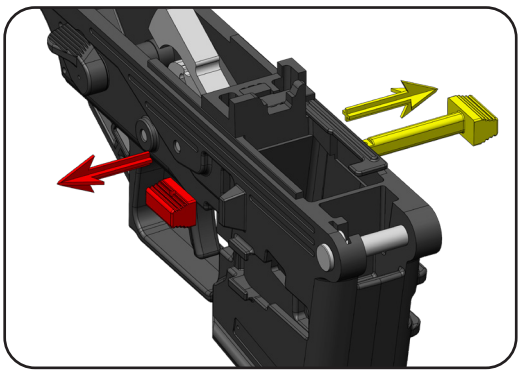


12.2.5 Changing the bolt catch (Glock & Sig)

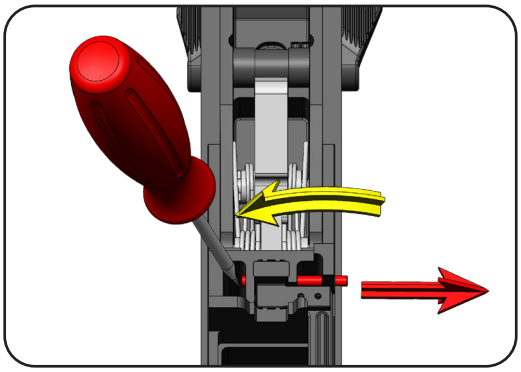
a. Remove the parallel pin on the left bolt catch knob with a 1.5mm Punch.



b. Remove both (yellow & red) bolt catch knobs.

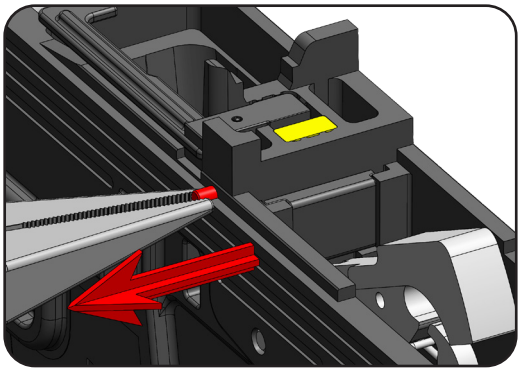


c. Use a screw driver to reach behind the parallel pin holding the spring retainer (red). Tilt the screw driver sideways (yellow) to move the parallel pin out as far as possible. (red)

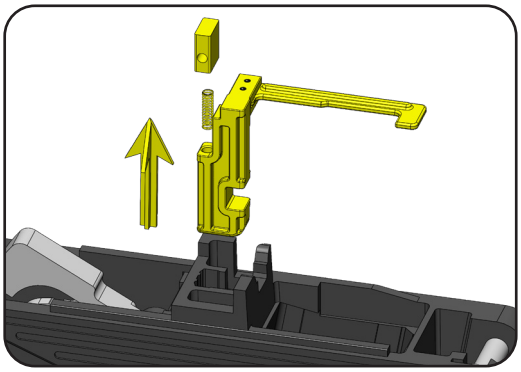


d. Use needle-nose pliers to pull the parallel pin all the way out.

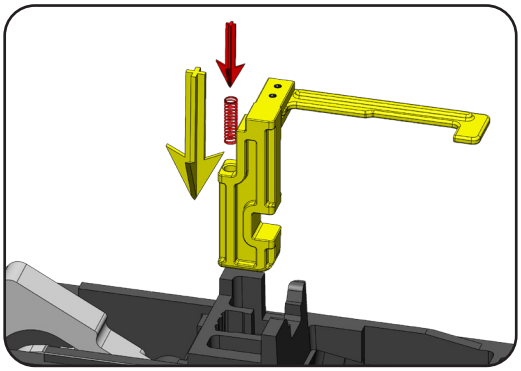
SAFETY-REMARK!	
⚠	MAKE SURE TO HOLD THE SPRING RETAINER (YELLOW) DOWN WHILE PULLING, OTHERWISE IT WILL POP OUT.



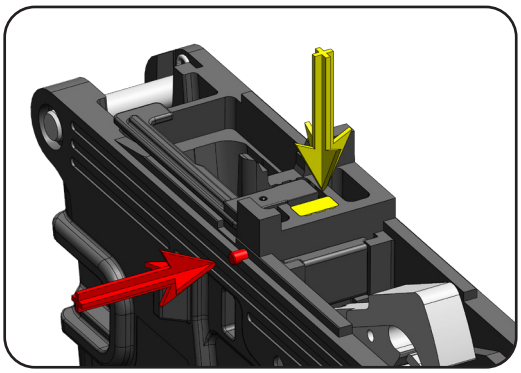
e. Remove the bolt catch, the bolt catch spring retainer and the bolt catch reset spring. (yellow)
f. Remove dirt or foreign particles, replace worn parts.



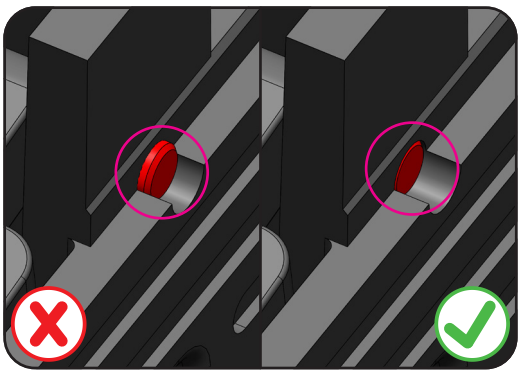
g. Insert the bolt catch (yellow) and the bolt catch reset spring (red) from the top into the receiver.



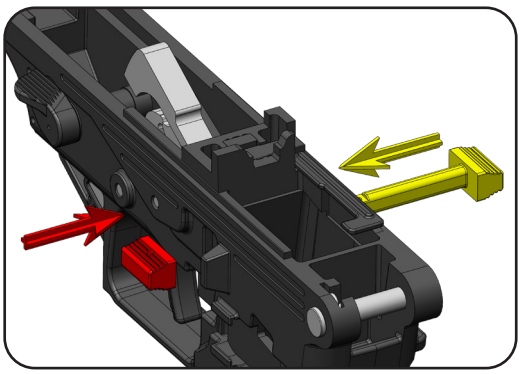
h. Insert the bolt catch spring retainer from the top into the receiver and hold down on it. (yellow)
i. Push the parallel pin from the right side all the way into the receiver. (red)



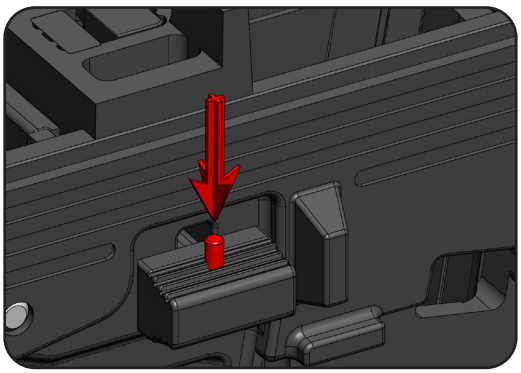
j. Make sure that the parallel pin is seated all the way in the receiver.
k. Pull the front tip of the bolt catch upwards. (as the magazine follower would do)
   » The bolt catch should move freely upwards and return to its original position (by its return spring) after the bolt catch lever is being released.



l. Insert both (yellow & red) bolt catch knobs into the receiver.

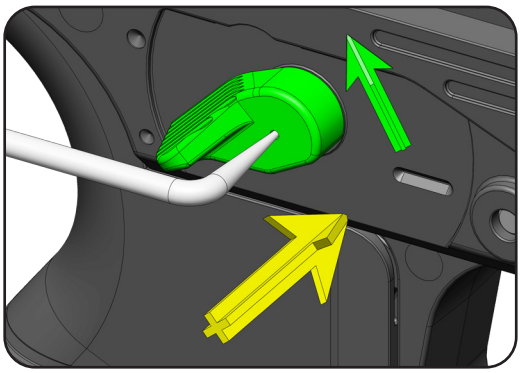


m. Insert the parallel pin on the left bolt catch knob with a 1.5mm punch.

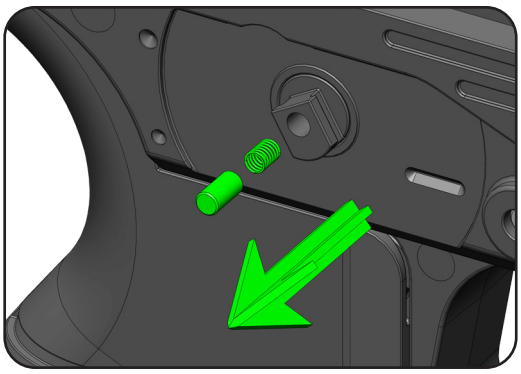


12.2.6 Changing the fire selector

a. Cock the hammer
b. Set the fire selector lever to single fire
c. Using the mounting hook, push the fire selector lever retaining pin through the small hole in the right fire selector lever and keep it pressed. (yellow)
d. Push fire selector lever to the left-up. (green)

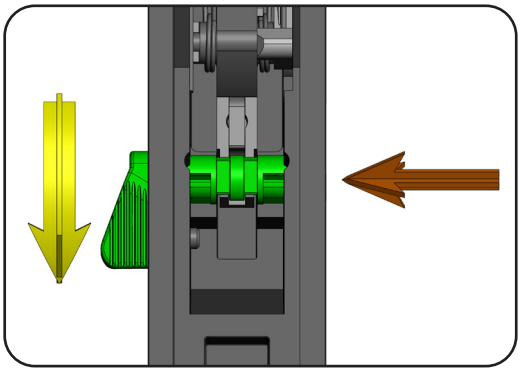


REMARK!
The retaining pin and its spring may pop out when the fire selector lever is removed



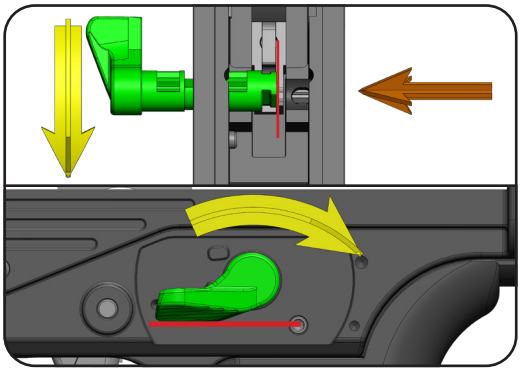
e. Remove retaining pin for fire selector lever and its spring.

f. Set the fire selection lever to safe.
g. Press the right side of the fire selector lever (orange) and simultaneously rotate the fire selector lever from safe to semi auto. (yellow)
   » The fire selector lever should jump from the position to the left during the transition from safe to semi auto.

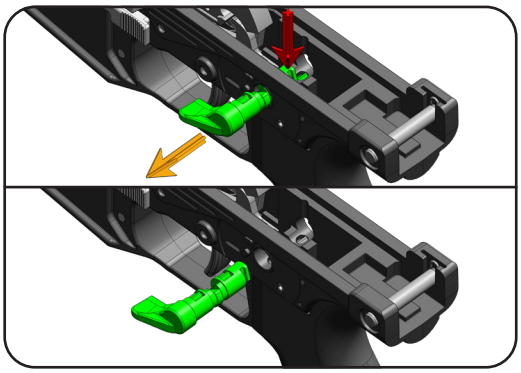


REMARK!
The detents and their spring can pop out when the fire selector lever is removed

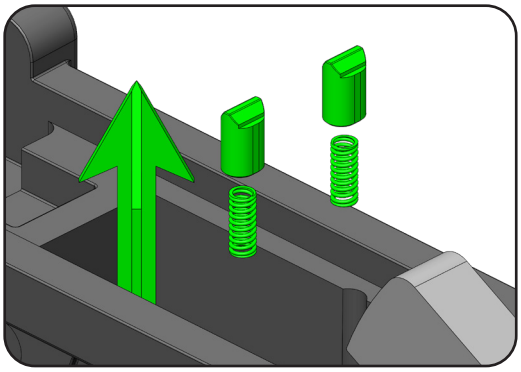
h. Continue to rotate the fire selection lever and pull it to the left.
   » When the end of the fire selector lever is in the middle of the handle, the lever should be rotated 180°.



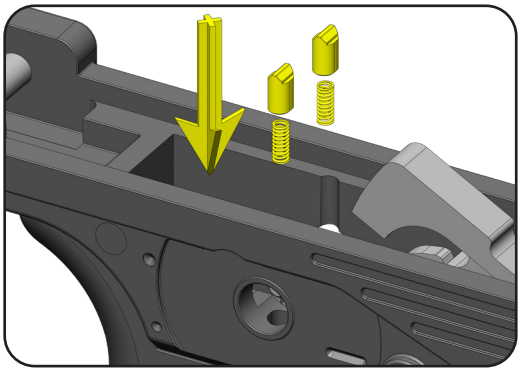
i. Pull the fire selector lever to the left out of the housing (orange), pressing on the fire selector lever from above in the middle of the lower receiver. (red)



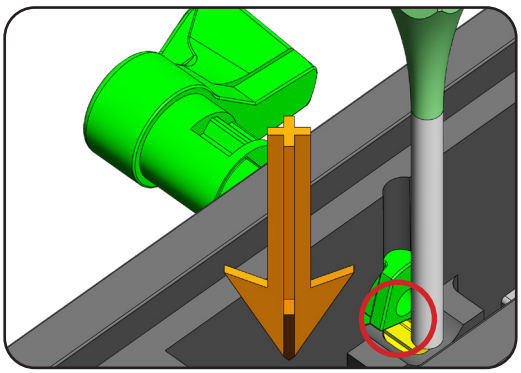
j. Remove the detents and their springs from the lower receiver.
k. Remove dirt or foreign particles, replace worn parts.



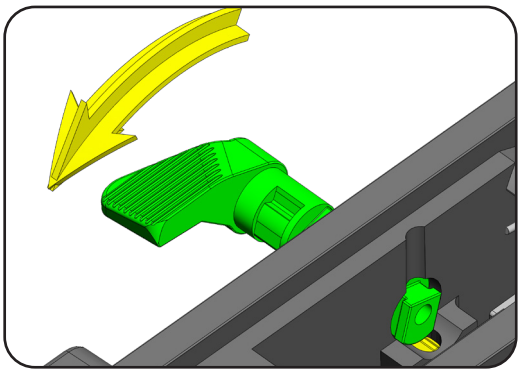
l. Insert the detents and their springs into the lower receiver.



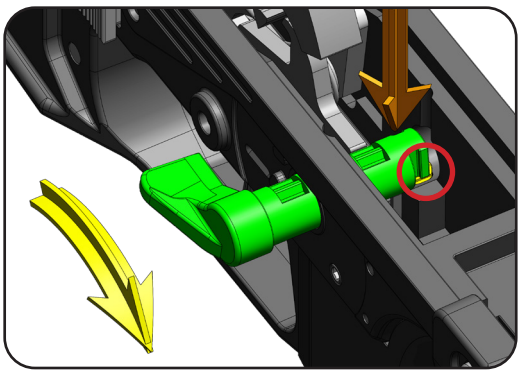
m. Insert the fire selector lever into the lower receiver from the left.
n. Use a punch to press the left detent downward (orange) so that the straight surface on the fire selector lever slides over the detents.



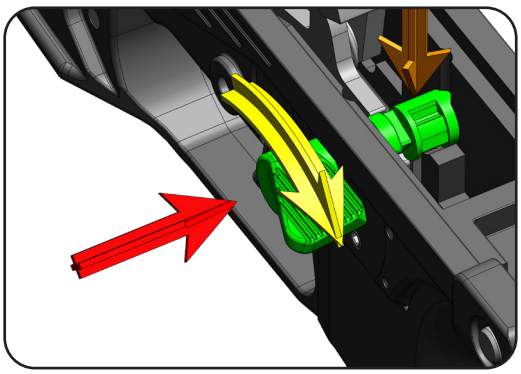
o. Rotate the fire selector lever until the left detent is on the round surface.



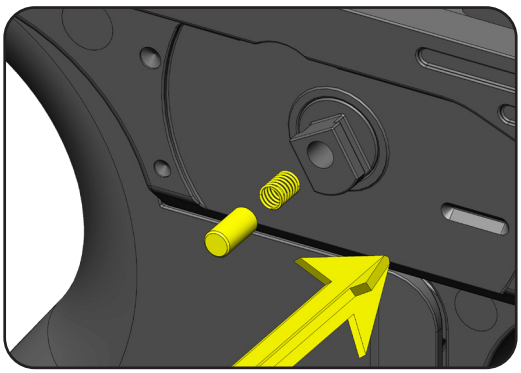
p. Push the fire selector lever to the right until it is in contact with the right side detent.
q. Rotate the fire selector lever (yellow) and tilt it so that the straight surface on the fire selector lever slides over the right side detent.
r. Rotate the fire selector lever (yellow), while pressing the lever inside downward (orange), until the detent piece is on the round surface.



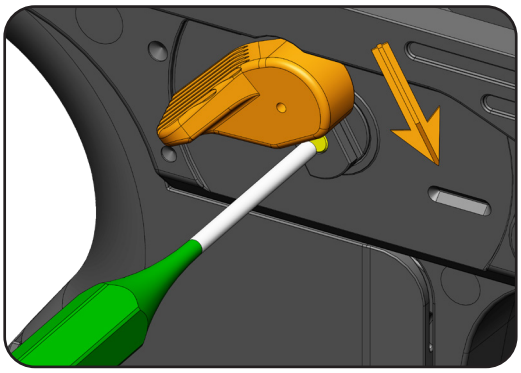
s. Continue to rotate the fire selector lever (yellow) while pushing the lever down inside (orange) and continue to push the fire selector lever to the right (red) until it slides into the hole on the Right side of the lower receiver.



t. Set the fire selector lever to single fire
u. Insert the retaining pin and its spring.

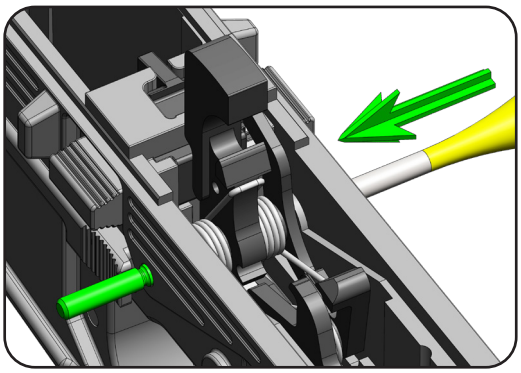


v. Press the holding pin flush into the fire selector lever with a punch and hold it like this.
w. Slide the right fire selector lever over the fire selector lever until it audibly engages in its end position.



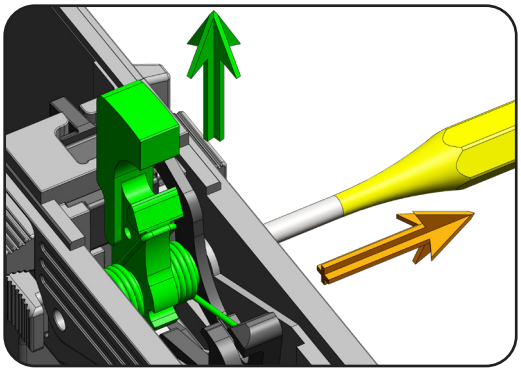
12.2.7 Changing the full auto hammer

a. Place the thumb on the hammer. Pull the trigger while guiding the hammer forward.
b. Using a 4 mm punch, slide the hammer axis out of the lower receiver from right to left.
   » Leave the punch in place.

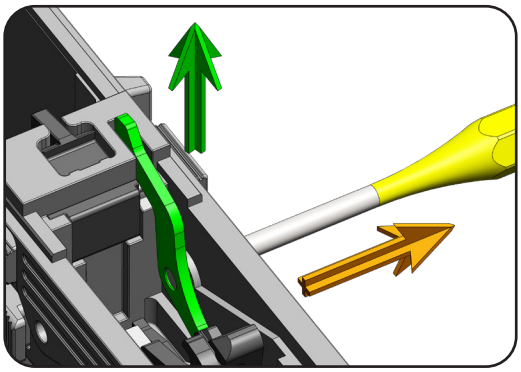


c. Carefully pull the punch out of the lower receiver to the right (orange). Hold the hammer and remove it from the lower receiver as soon as it comes free. (green)

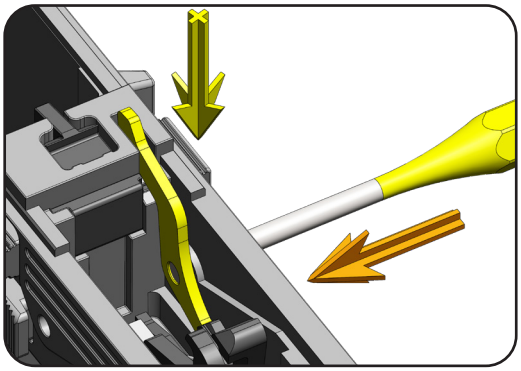
SAFETY-REMARK!	
⚠	The hammer spring is under great tension, if handled without care, the hammer can spring out when the punch is removed.



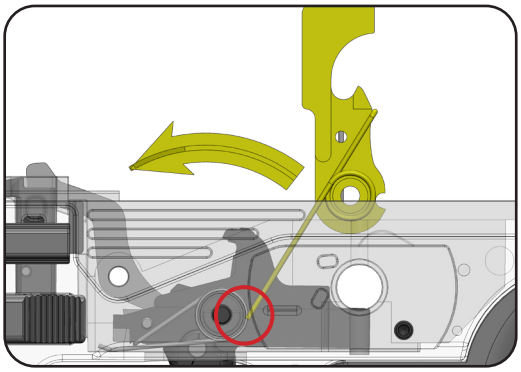
d. Pull the punch further to the right. (orange)
e. As soon as the release lever comes free, remove it upwards from the lower receiver. (green)
f. Remove dirt and foreign particles, replace worn/defective parts.



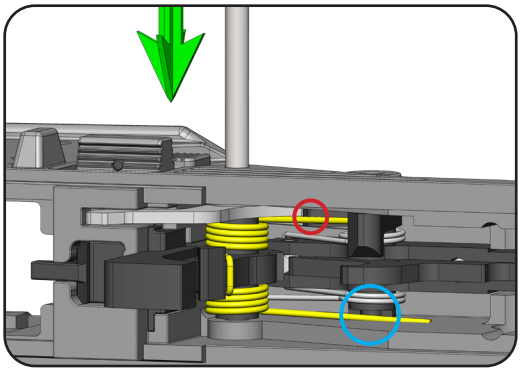
g. Insert the release lever into the lower receiver from above (yellow).
h. From the right, insert a 3mm punch through the hammer axis hole into the corresponding hole on the release lever.
   » For the next step, make sure that the punch does not protrude beyond the release lever.



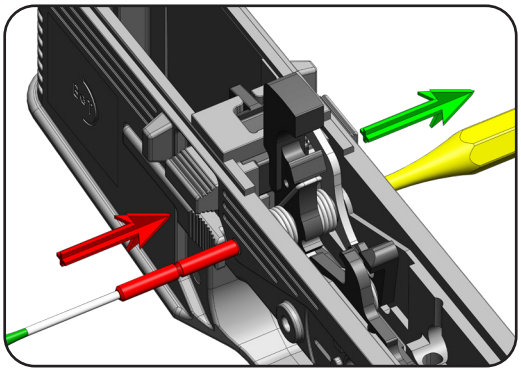
i. Position the hammer at the top behind the trigger axis.
   » The legs of the hammer spring must be in contact with the rear of the trigger.
j. Move the hammer in a circular motion over the disconnector to reach the mounting position.



k. Push the punch through the axis of the hammer to hold it in position.
l. The longer leg of the hammer spring must be positioned in the cutout of the trigger. (blue)
m. The shorter leg of the hammer spring must be positioned in the groove of the sear. (red)



n. Insert hammer axle from the left into the respective hole on the lower receiver and push through (red). Hold the hammer in position.
o. When pushing the axle through, the punch, which is inserted from the right, is pushed out to the right.
p. Position the hammer axle centrally in the lower receiver.

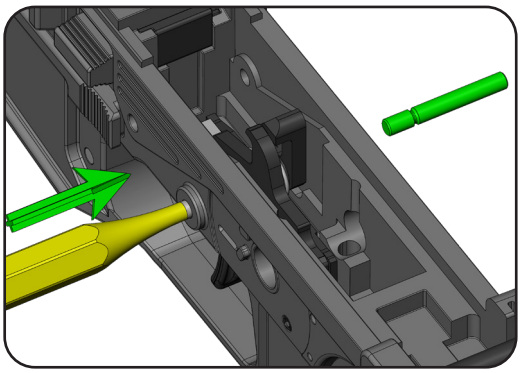


SAFETY-REMARK!	
⚠	The hammer spring is under great tension; if handled without care, the hammer may spring out when the axle is pushed through.

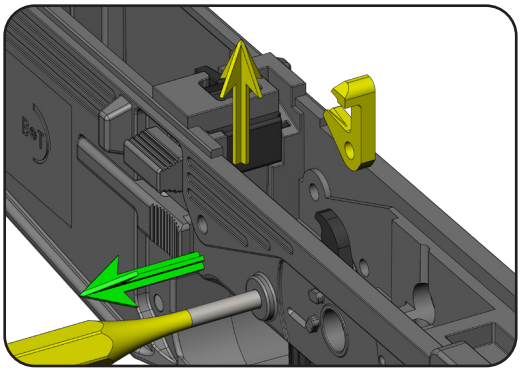
q. Apply light pressure from both sides to the hammer and trigger axis with a punch.
   » The hammer axis is held in position by the locking spring in the hammer.
   » The trigger axis is held in position by the hammer spring.

12.2.8 Changing the full auto trigger

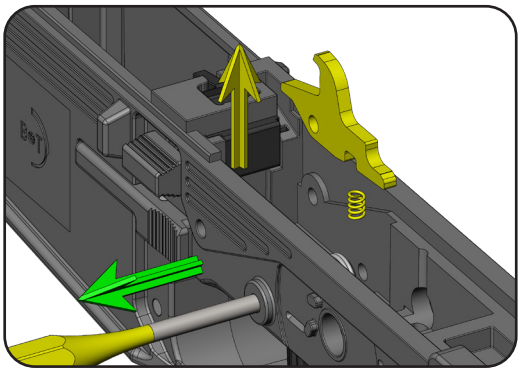
a. Remove the fire selector. (see chapter 12.2.6 on page 50)
b. Remove the hammer. (see chapter 12.2.7 on page 54)
c. Using a 4 mm punch, push the trigger axis out of the lower receiver from the right to the left.
   » Leave the punch in place.



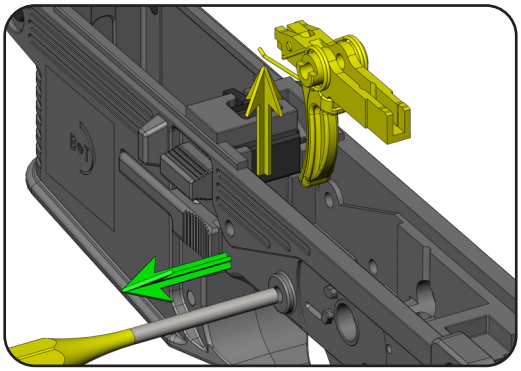
d. Pull the punch to the left out of the lower receiver (green). As soon as the sear comes free, remove it upwards from the lower receiver. (yellow)



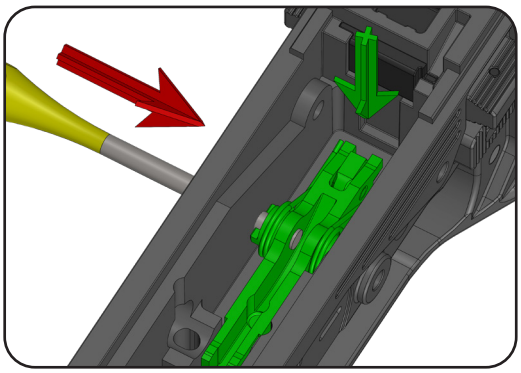
e. Pull the punch further to the left out of the lower receiver (green). As soon as the disconnector comes free, remove it and the disconnector spring upwards from the lower receiver. (yellow)



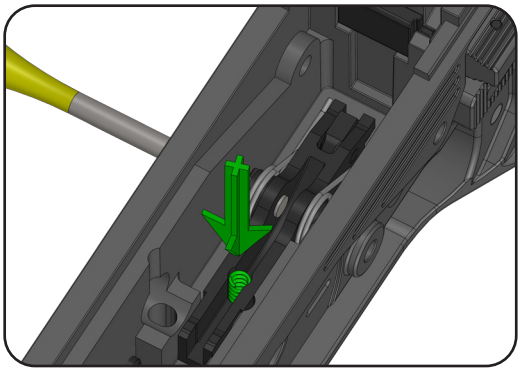
f. Pull the punch further to the left out of the lower receiver (green). As soon as the trigger is released, remove it upwards from the lower receiver. (yellow)
g. Remove any dirt and foreign particles, replace worn/defective parts.



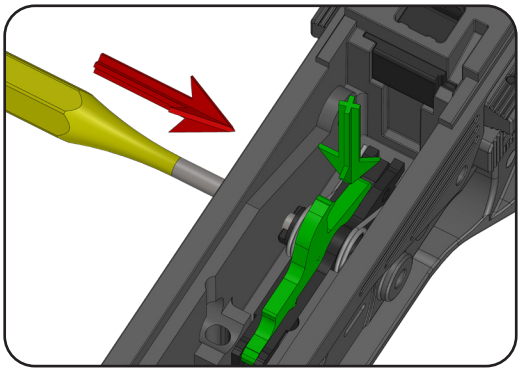
h. Insert the trigger into the lower receiver from above.
i. Insert a 3mm punch from the right through the trigger axis hole into the corresponding hole on the trigger.
   » For the next step, make sure that the punch does not protrude into the groove of the trigger.



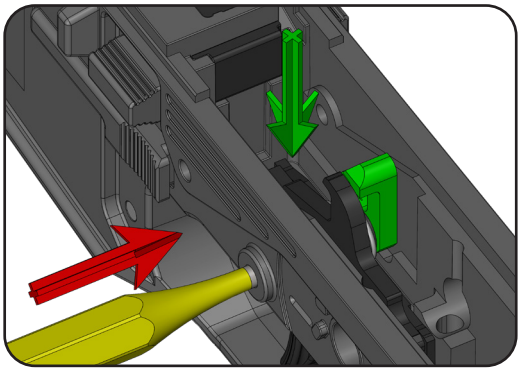
j. Position the disconnector spring in the trigger.



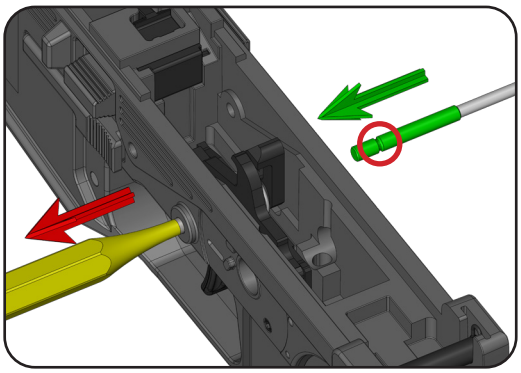
k. Position the disconnector in the trigger and secure it with the punch.



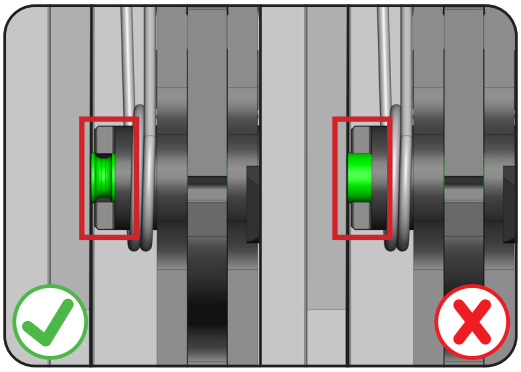
l. Position the sear in the lower receiver and secure it with the punch.



m. Insert the trigger axis into the lower receiver from the right.
n. Make sure that the groove on the trigger axis is positioned correctly. (groove first)
o. Push the trigger axis through and position it centrally.

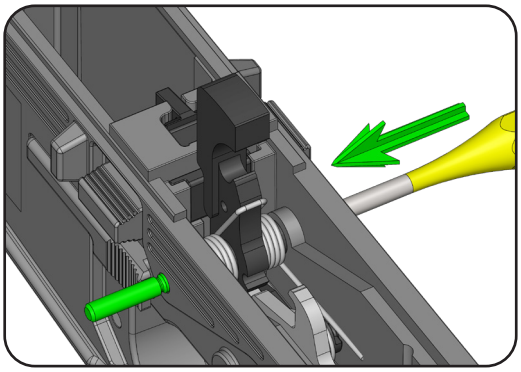


p. Check whether the groove on the trigger axis is positioned centrally in the cutout of the trigger.
q. If not, push the axis sideways or check the installation orientation.
r. Install the hammer. (see chapter 12.2.7 on page 54)
s. Install the fire selector. (see chapter 12.2.6 on page 50)

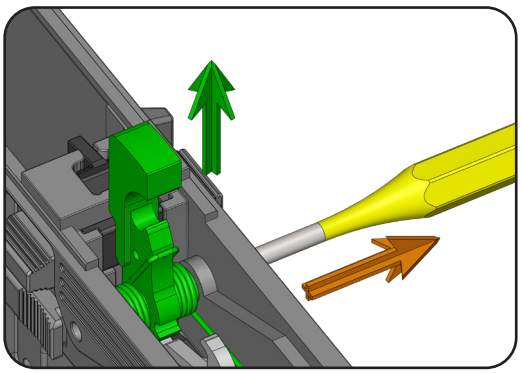


12.2.9 Changing the semi auto hammer

a. Place the thumb on the hammer. Pull the trigger while guiding the hammer forward.
b. Using a 4 mm punch, slide the hammer axis out of the lower receiver from right to left.
   » Leave the punch in place.

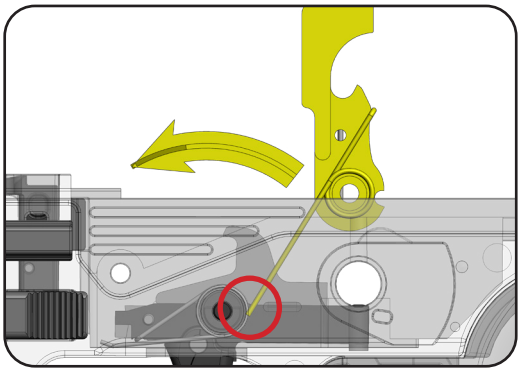


c. Carefully pull the punch out of the lower receiver to the right (orange). Hold the hammer and remove it from the lower receiver as soon as it comes free. (green)

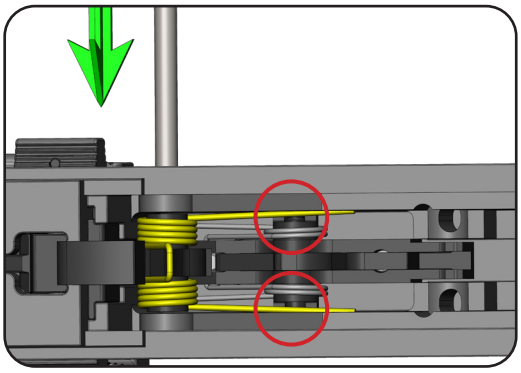


SAFETY-REMARK!	
⚠	The hammer spring is under great tension, if handled without care, the hammer can spring out when the punch is removed.

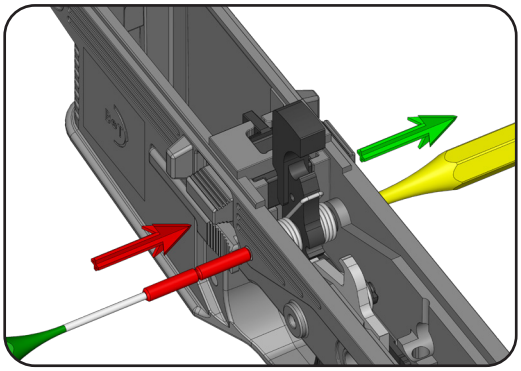
d. Remove dirt and foreign particles, replace worn/defective parts.
e. Position the hammer at the top behind the trigger axis.
   » The legs of the hammer spring must be in contact with the rear of the trigger.
f. Move the hammer in a circular motion over the disconnector to reach the mounting position.



g. Push the punch through the axis of the hammer to hold it in position.
h. The both legs of the hammer spring must be positioned in the corresponding cutout of the trigger. (red)



i. Insert hammer axle from the left into the respective hole on the lower receiver and push through (red). Hold the hammer in position.
   » When pushing the axle through, the punch, which is inserted from the right, is pushed out to the right.

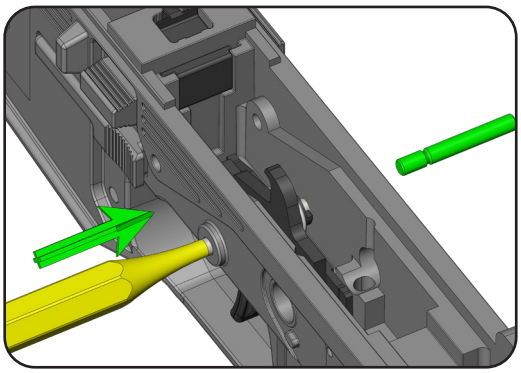


SAFETY-REMARK!	
⚠	The hammer spring is under great tension, if handled without care, the hammer can spring out when the punch is removed.

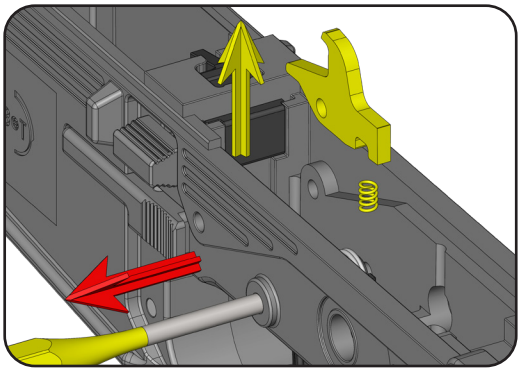
j. Position the hammer axle centrally in the lower receiver.
k. Apply light pressure from both sides to the hammer and trigger axis with a punch.
   » The hammer axis is held in position by the locking spring in the hammer.
   » The trigger axis is held in position by the hammer spring.

12.2.10 Changing the semi auto trigger

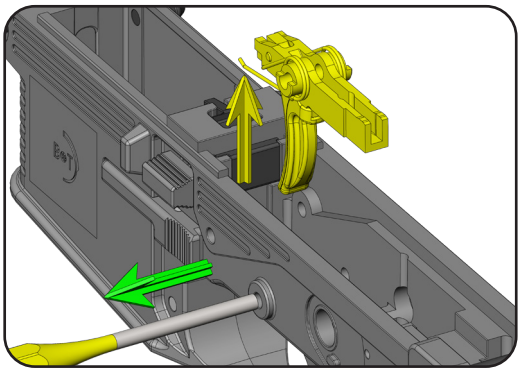
a. Remove the fire selector. (see chapter 12.2.6 on page 50)
b. Remove the hammer. (see chapter 12.2.9 on page 58)
c. Using a 3 mm punch, push the trigger axis out of the lower receiver from the right to the left.
   » Leave the punch in place.



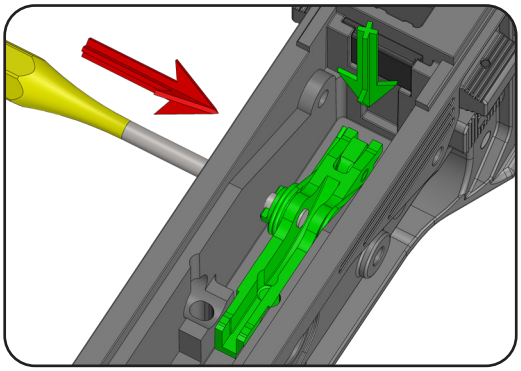
d. Pull the punch to the left out of the lower receiver (red). As soon as the disconnector comes free, remove it and also the disconnector spring upwards from the lower receiver. (yellow)



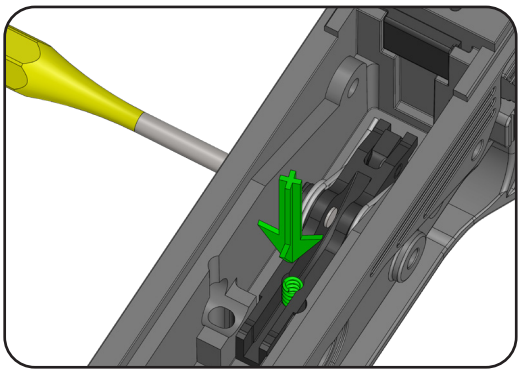
e. Pull the punch further to the left out of the lower receiver (green). As soon as the trigger is released, remove it upwards from the lower receiver. (yellow)
f. Remove any dirt and foreign particles, replace worn/defective parts.



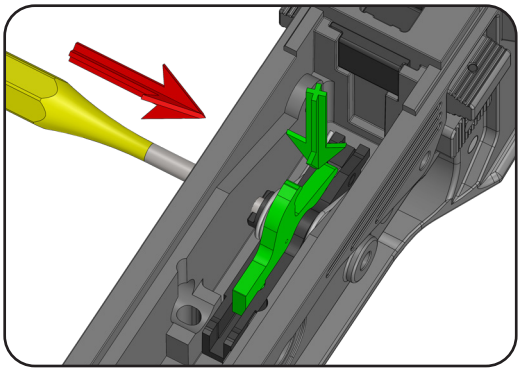
g. Insert the trigger into the lower receiver from above.
h. Insert a 3mm punch from the left through the trigger axis hole into the corresponding hole on the trigger.
   » For the next step, make sure that the punch does not protrude into the groove of the trigger.



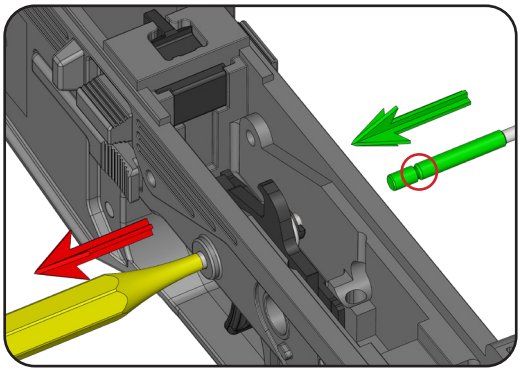
i. Position the disconnector spring in the trigger.



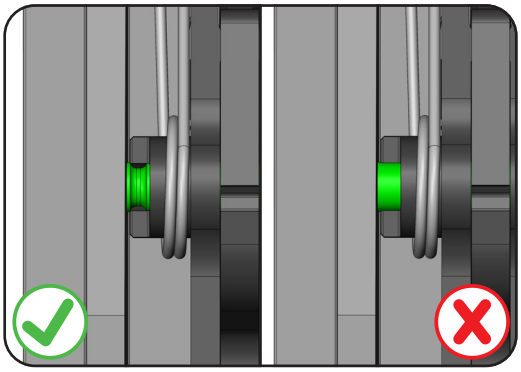
j. Position the disconnector in the trigger and secure it with the punch.



k. Insert the trigger axis into the lower receiver from the right.
   » Make sure that the groove on the trigger axis is positioned correctly. (groove first)

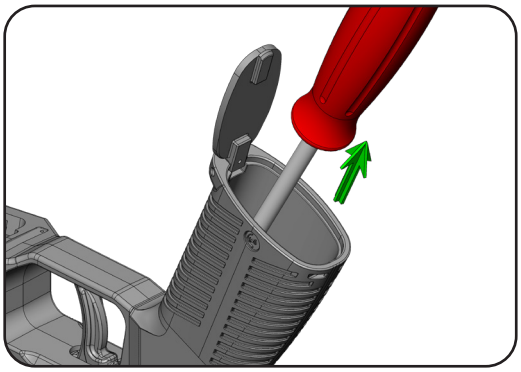


l. Push the trigger axis through and position it centrally.
m. Check whether the groove on the trigger axis is positioned centrally in the cutout of the trigger.
n. If not, push the axis sideways or check the installation orientation.
o. Install the hammer. (see chapter 12.2.9 on page 58)
p. Install the fire selector. (see chapter 12.2.6 on page 50)

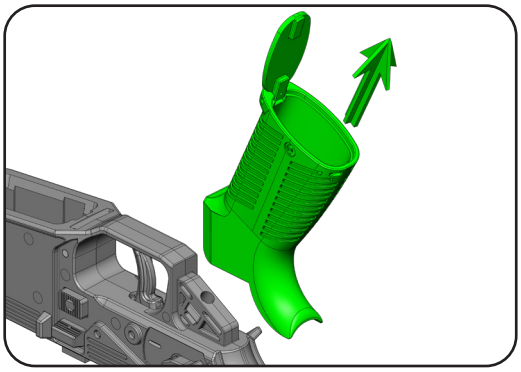


12.2.11 Changing the grip

a. Open the grip cover (“Operating Instructions).
Unscrew the grip screw using a suitable screwdriver (slot or Torx).

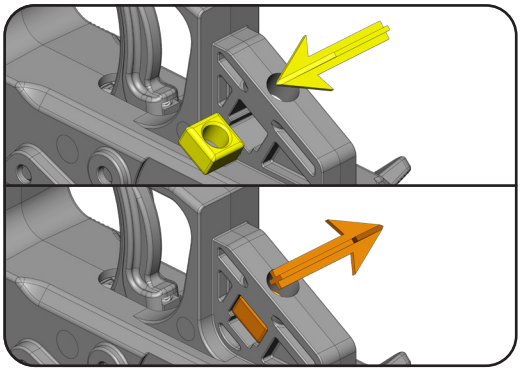


b. Pull the grip off the lower receiver.

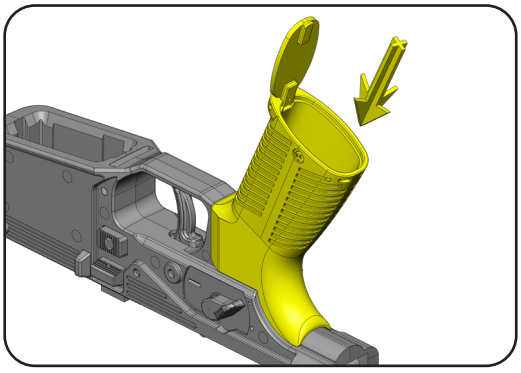


c. Remove the grip nut from the lower receiver.
Remove any dirt and foreign particles, replace worn/defective parts.

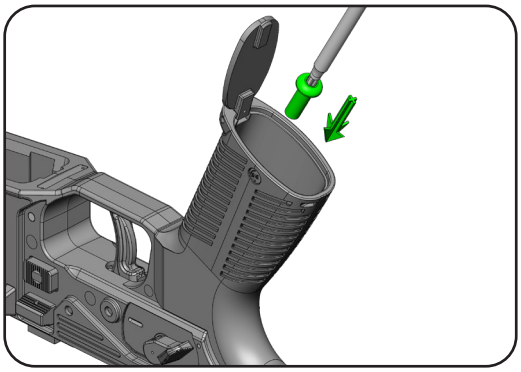
d. Insert the grip nut into the lower receiver.



e. Push the grip onto the lower receiver.

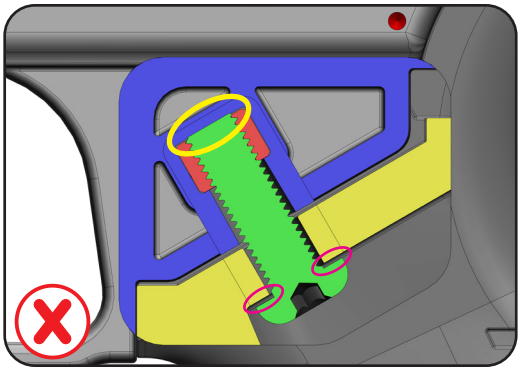


f. Screw in the grip screw and tighten to a maximum of 5 Nm.

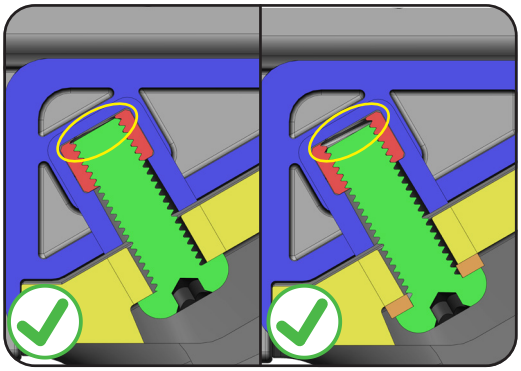


REMARK!	
ⓘ	If the screw is tightened with more than 5 Nm because the grip is not tight, the lower receiver can be damaged.

g. Check whether the grip is firmly seated on the lower receiver.
   » If the grip still wobbles, the screw for the grip is too long and is in contact with the lower receiver.

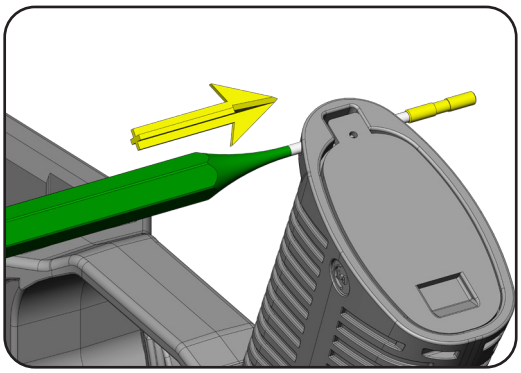


h. If the screw is in contact with the lower receiver, either install a shorter screw or a washer.

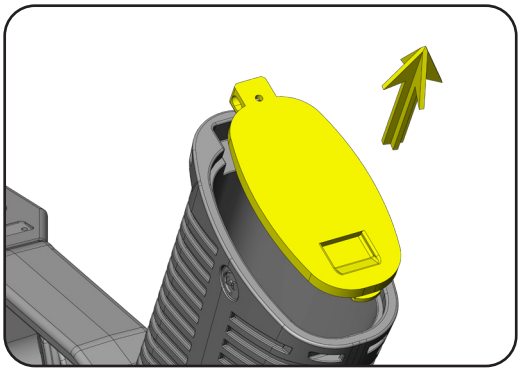


12.2.12 Changing the grip cover

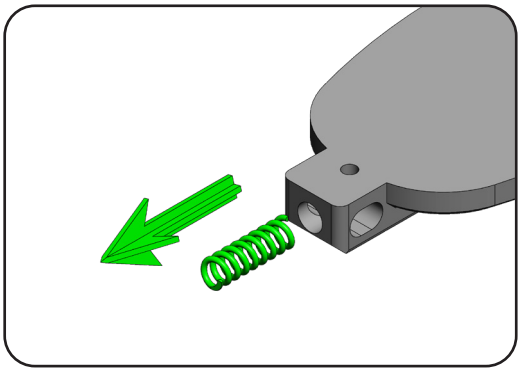
a. Remove the pin for the grip cover using a 2.5 mm punch.



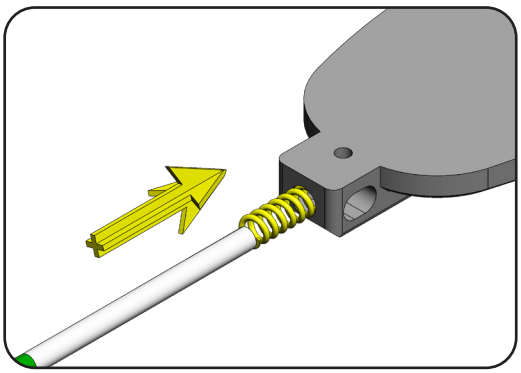
b. Remove the grip cover from the grip.



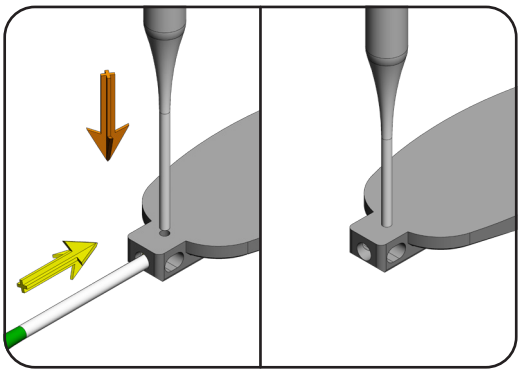
c. Remove the spring for the handle cover.
d. Remove any dirt and foreign particles, replace worn/ defective parts.



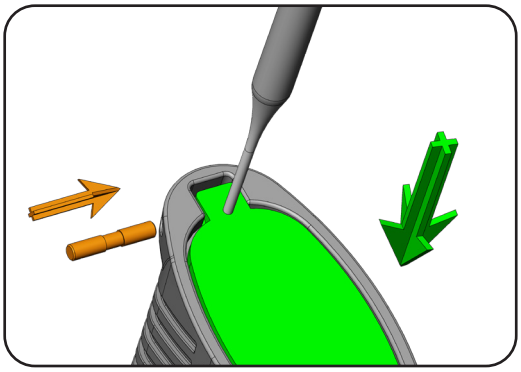
e. Insert the spring for the grip cover into the grip cover and press it in with a 2.5 mm punch.



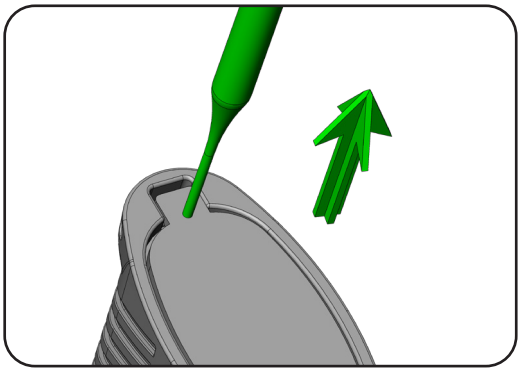
f. Preload the spring with the punch (yellow) until it can be secured with a 1.5mm punch through the mounting hole from above (orange).
g. Remove the 2.5mm punch from the grip cover.



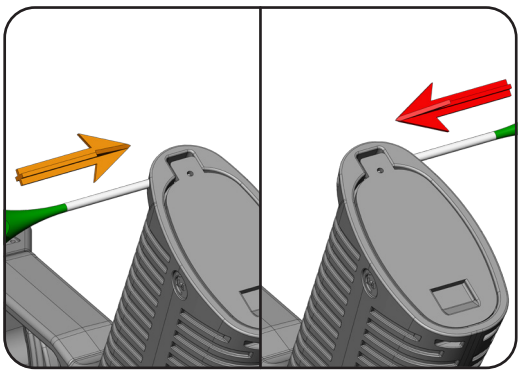
h. Insert the grip cover into the grip.
i. Insert the pin for the grip cover until it is centered in the grip.



j. Remove the 1.5mm punch from the grip cover.



k. Gently press the pin in from both sides to ensure that the spring is engaged in the pin groove.



13. Inspections and measures on the stocks

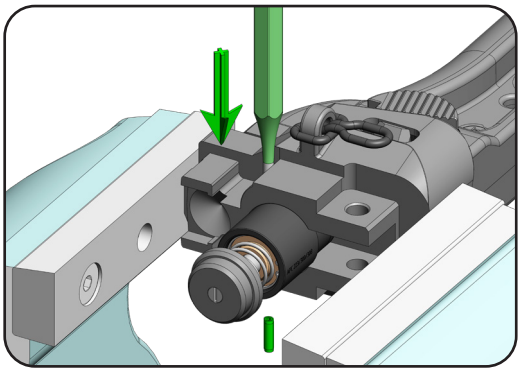
13.1 Hydraulic buffer

13.1.1 Inspections

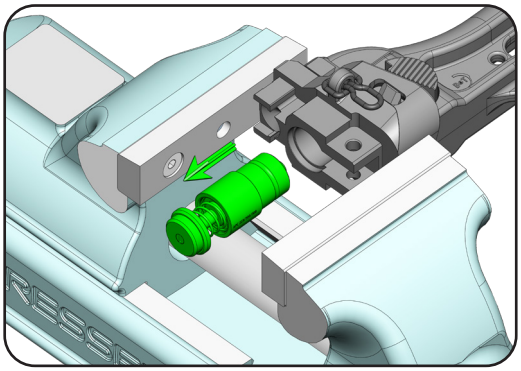
a. Disassemble the weapon.
   » Operator Manual.
b. Visually inspect the hydraulic buffer for heavy contamination.
   » Clean if necessary.
c. Visually inspect the hydraulic buffer for cracks or breaks.
   » Replace hydraulic buffer if any cracks or breaks are visible.
d. Visually inspect the hydraulic buffer for oil leakage.
   » Replace hydraulic buffer if any leakage is visible.

13.1.2 Changing the hydraulic buffer

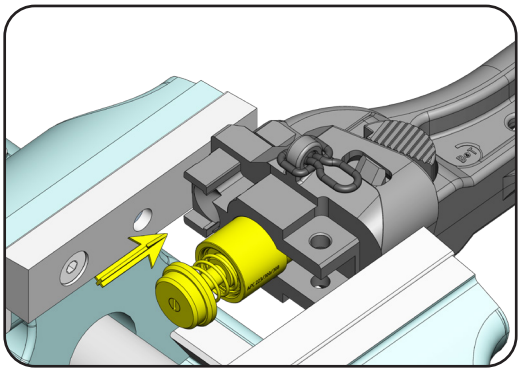
a. Clamp the stock adapter in a vice.
b. Remove spiral pin with a 2.5 mm punch.



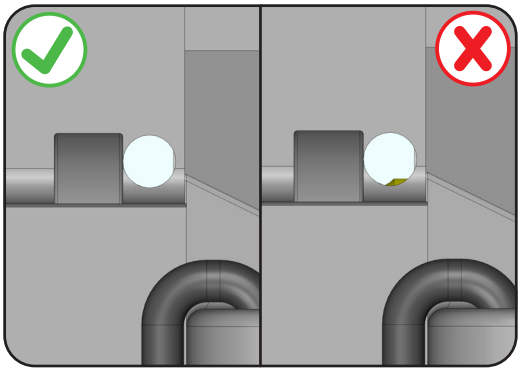
c. Remove the hydraulic buffer from the stock adapter.
d. Remove any dirt and foreign particles, replace worn/ defective parts.



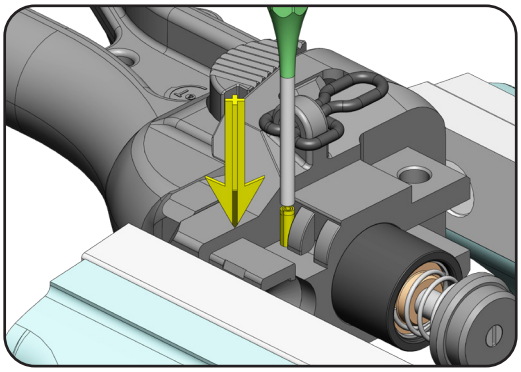
e. Install the hydraulic buffer in the stock adapter.



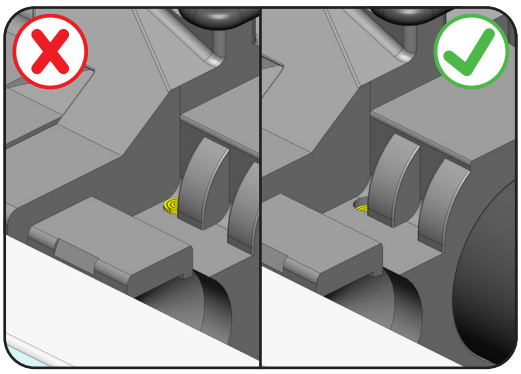
f. Ensure that the hydraulic buffer is installed up to the rear stop so that the retention groove on the hydraulic buffer housing is aligned with the spiral pin bore.



g. Press the spiral pin into the corresponding hole on the stock adapter using a punch.



h. Press in the spiral pin so that it is recessed in the bore on both sides by at least 0.5 mm and does not protrude beyond the surface of the stock adapter.



13.2 Folding and retractable stock PRO

13.2.1 Inspections

a. Visually inspect the stock for dirt, cracks or fractures.
   - » Clean if necessary.
   - » There should be no visible defects.

b. Adjust the stock to different lengths.
   - » The stock should be able to be unlocked and extended without major effort and should lock into place at the different lengths.
   - » The stock should be held at the longest position.

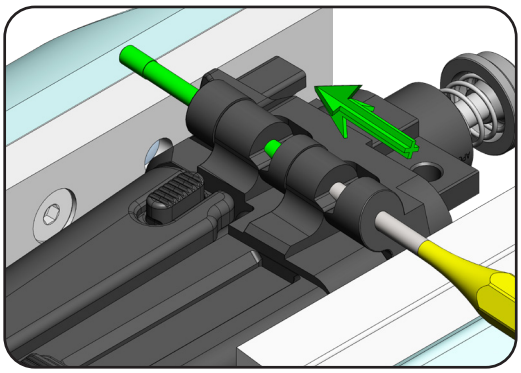
c. Adjust the cheek rest to the different heights.
   - » The cheek rest should be able to be adjusted without major force and lock at the individual positions.

d. Fold the stock down and back
   - » The stock should be able to be folded down without major effort.
   - » The stock should lock in both the folded and the straight position and the lock should be easy to release again.

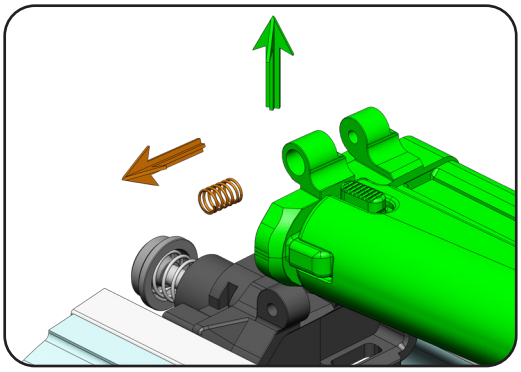
13.2.2 Changing the polymer stock adapter

a. Clamp the stock adapter in a vice
b. Remove the folding axle with a 4mm punch.

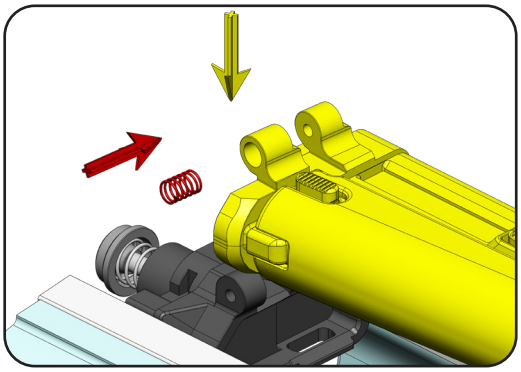
SAFETY-REMARK!	
⚠	The axle spring is under tension, in case of careless handling the spring can pop out when the axle is pushed through.



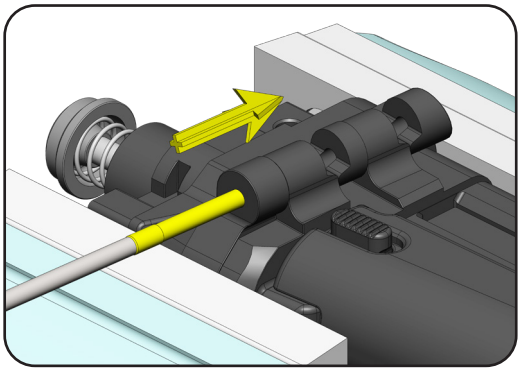
c. Remove the folding part of the stock (green), while also removing the spring. (orange)
d. Remove any dirt and foreign particles, replace worn/ defective parts.



e. Insert the spring into the recess on the main body (red) and pretension it.
f. Insert the folding part of the stock into the stock adapter. (yellow)
   » Make sure that the spring is not bent during insertion and is correctly seated in the recess.

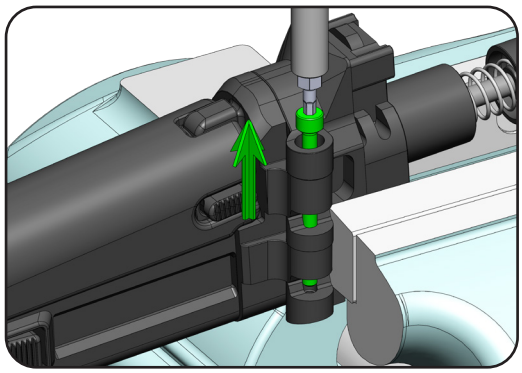


g. Guide the folding axis through the hole on the stock adapter and the base body until the rim of the stock adapter is in contact with the rim of the folding axis.
h. Press the folding axis the rest of the way in until it is seated flush in the stock adapter.



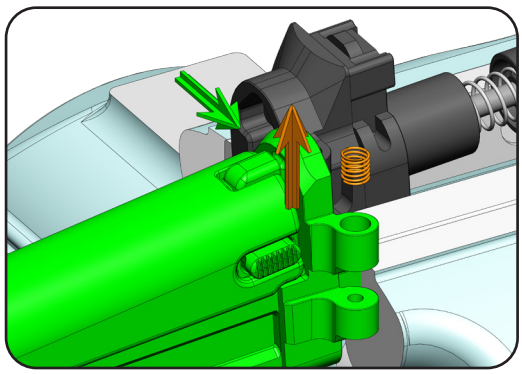
13.2.3 Changing the aluminum stock adapter

a. Clamp the stock adapter in the vice.
b. Remove the folding axle with a TORX key (size TX20).

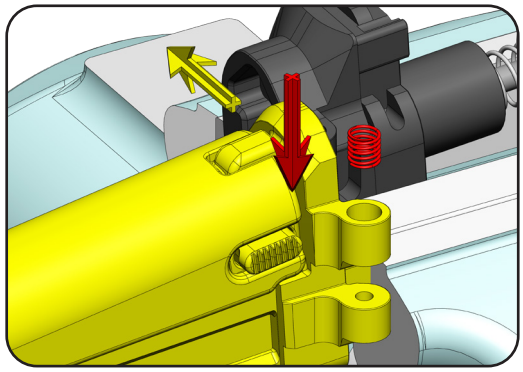


SAFETY-REMARK!	
⚠	The axle spring is under tension, in case of careless handling the spring can pop out when the axle is pushed through.

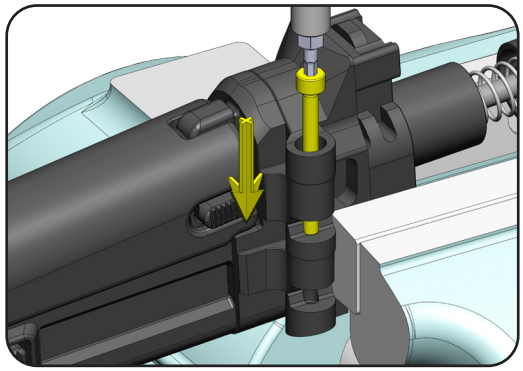
c. Remove the folding part of the stock (green), while also removing the spring (orange).
d. Remove any dirt and foreign particles, replace worn/ defective parts.



e. Insert the spring into the recess on the main body (red) and pretension it.
f. Insert the folding part of the stock into the stock adapter (yellow).
   » Make sure that the spring is not bent during insertion and is correctly seated in the recess.

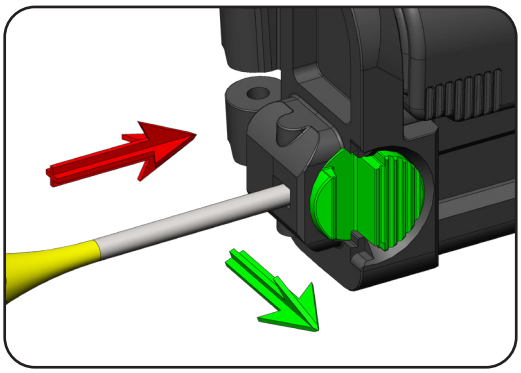


g. Clean and degrease the threads on the folding axis and the stock adapter and apply some Loctite 243.
h. Guide the folding axis through the hole on the stock adapter and base body.
i. Screw in the folding axis and tighten hand-tight (approx. 2Nm).



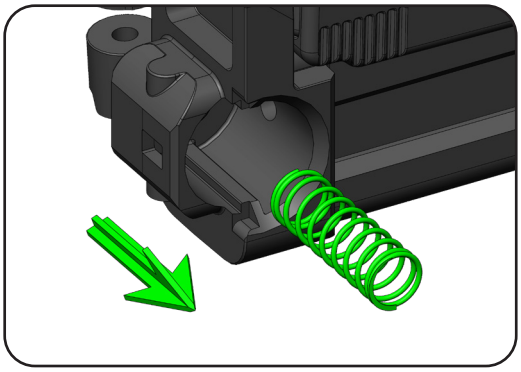
13.2.4 Changing the stock release button

a. Use a 4 mm punch to press in the locking lug of the stock release button (red), securing the stock release button with your thumb.



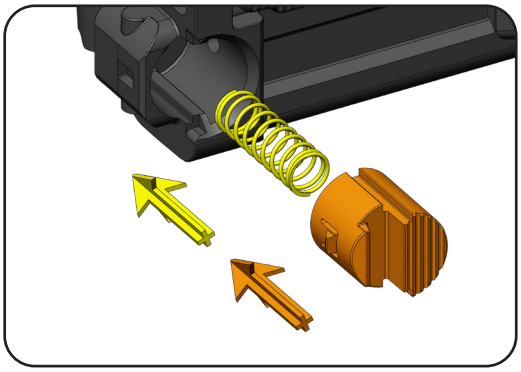
SAFETY-REMARK!	
⚠	The stock release button is under tension, in case of careless handling it may pop out

b. Remove the stock release button from the base body (green).



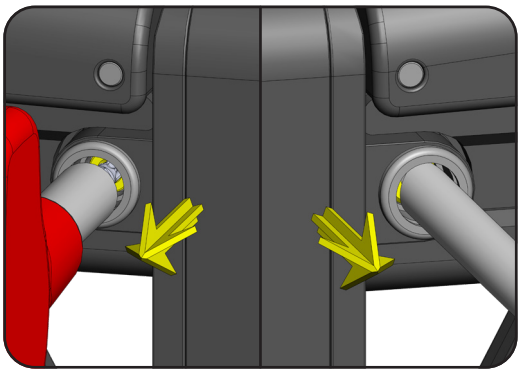
c. Remove the spring from the base body.
d. Remove any dirt and foreign particles, replace worn/defective parts.

e. Insert the spring and stock release button into the base body and press in until the latching lug on the stock release button audibly engages.

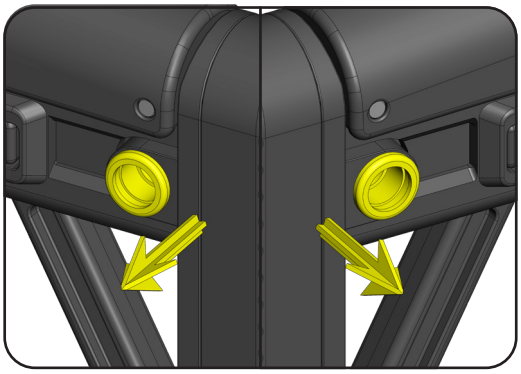


13.2.5 Changing the QD-sockets

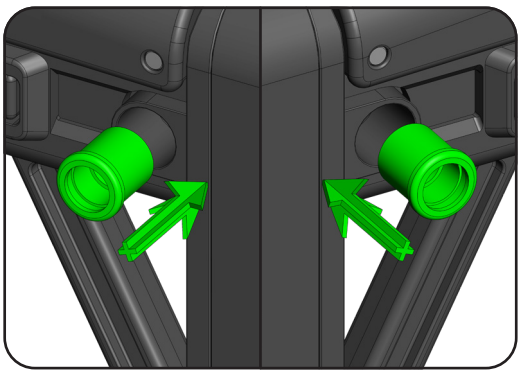
a. Loosen the fastening screw from one side using a TORX key (size T20), while holding the nut from the other side using a slotted nut screwdriver.



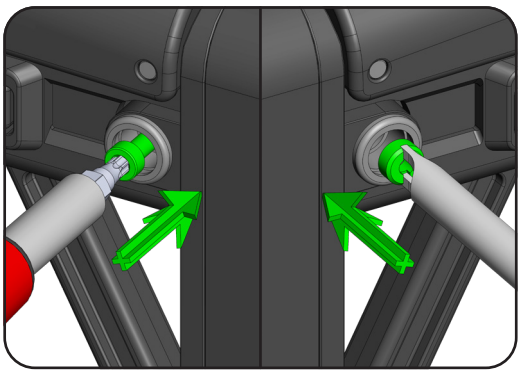
b. Remove the two QD sockets from the base body.
c. Remove any dirt and foreign particles, replace worn/ defective parts.



d. Insert the two QD sockets into the base body.

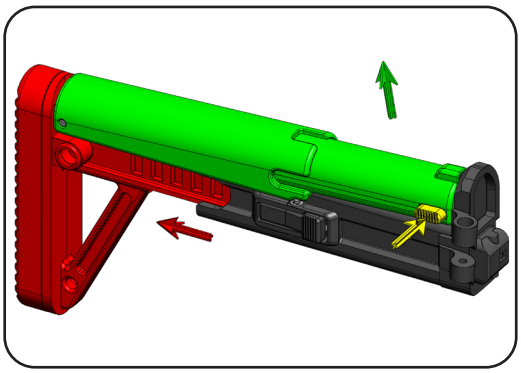


e. Degrease the threads of the screw and nut and apply a little Loctite 243 to both.
f. Insert the screw and nut and tighten them hand-tight (1.5 Nm).

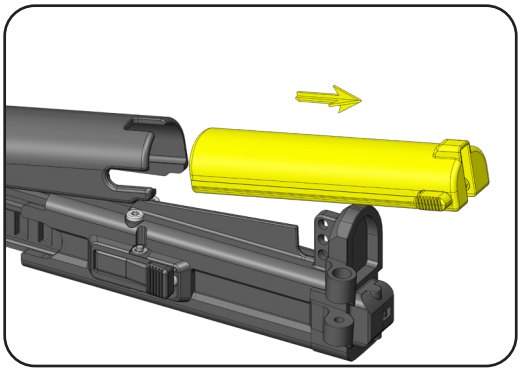


13.2.6 Removing the stock extension and the cheek rest

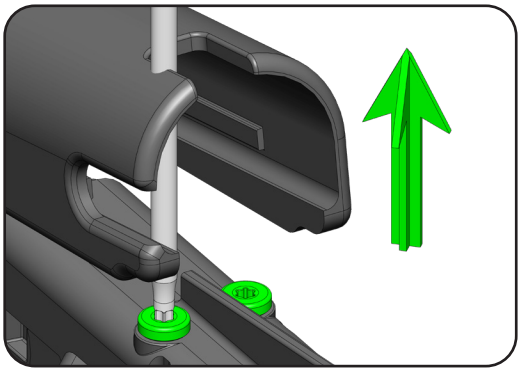
a. Pull out the stock extension completely (red).
b. Push in the cheek rest release button completely (yellow). Simultaneously turn the cheek rest upward beyond the uppermost adjustment position (green).



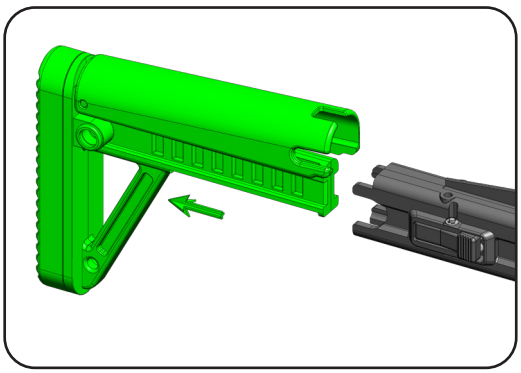
c. Remove the front cheek rest from the rear cheek rest by pulling it forward.



d. Unscrew the two locking screws with a TORX wrench (size T10).

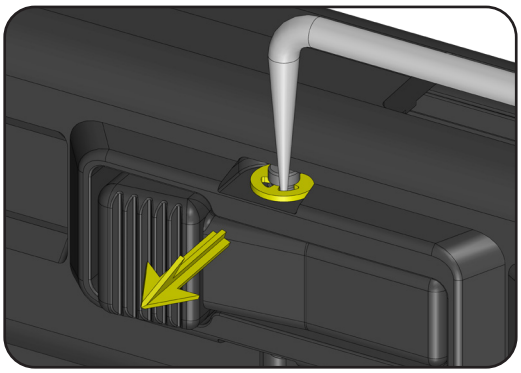


e. Pull the stock extension out of the base body.



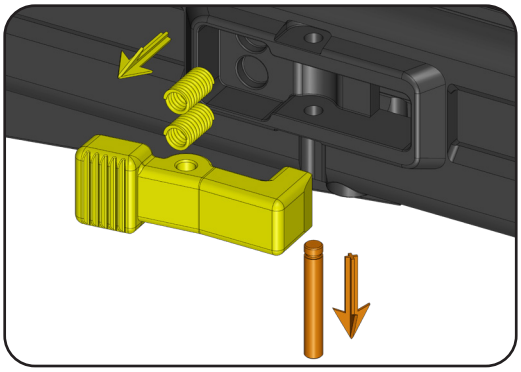
13.2.7 Changing the stop levers

a. Remove the locking washer using a pointed tool (screw-driver size 0).



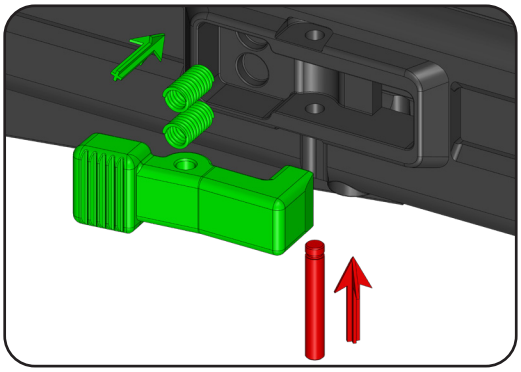
b. Remove the axle of the stop lever downwards. (orange)

SAFETY-REMARK!	
⚠	The stop lever is under tension, in case of careless handling it can spring out

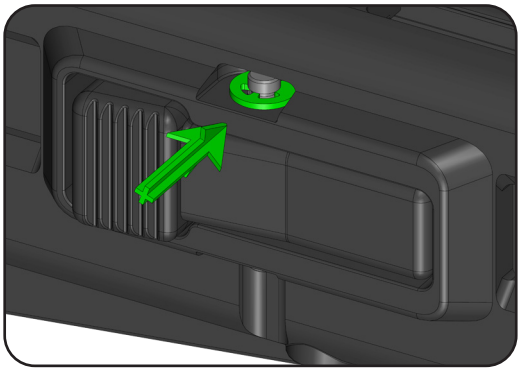


c. Remove the step lever and the springs from the base body. (yellow)

d. Remove any dirt and foreign particles, replace worn/de-fective parts.
e. Insert the stop lever and the springs into the base body. (green)
f. Insert the axle of the stop lever from below. (red)

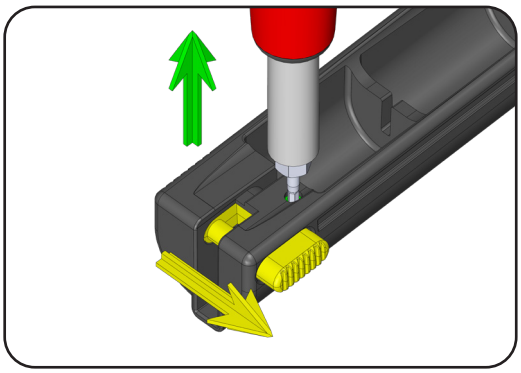


g. Mount the locking washer.



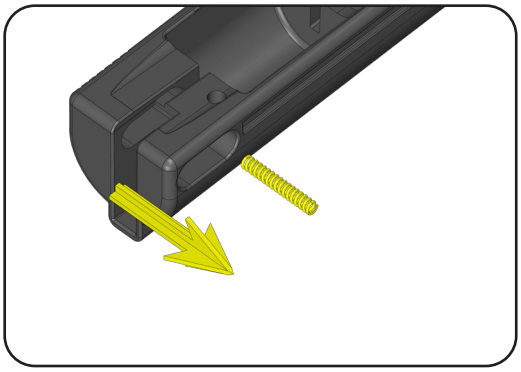
13.2.8 Changing the cheek rest knob

a. Remove the retaining screw with an Allen key (size 2mm) (green) while securing the cheek rest knob with your thumb.

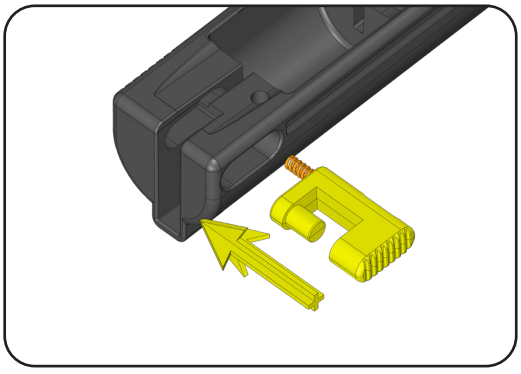


SAFETY-REMARK!	
⚠	The cheek rest knob is under tension, in case of careless handling it can pop out.

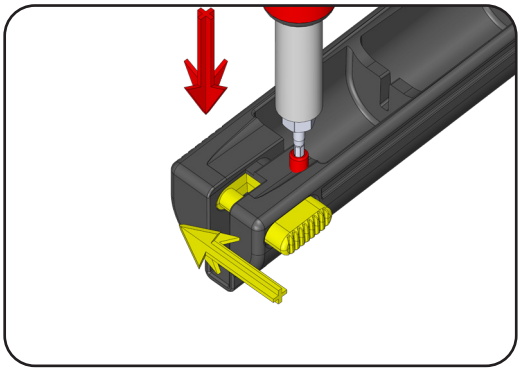
b. Remove the cheek rest knob. (yellow)



c. Remove the spring from the cheek rest.
d. Remove any dirt and foreign particles, replace worn/defective parts.



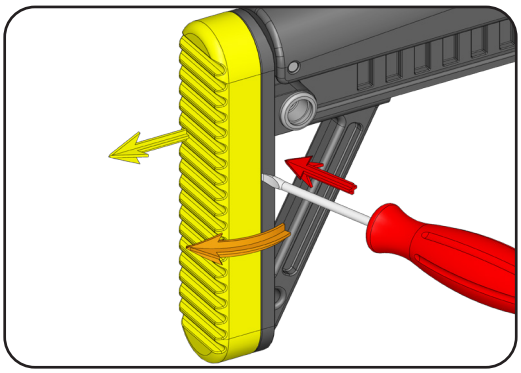
e. Insert the spring into the cheek rest knob. (orange)
f. Insert both together into the cheek rest. (yellow)



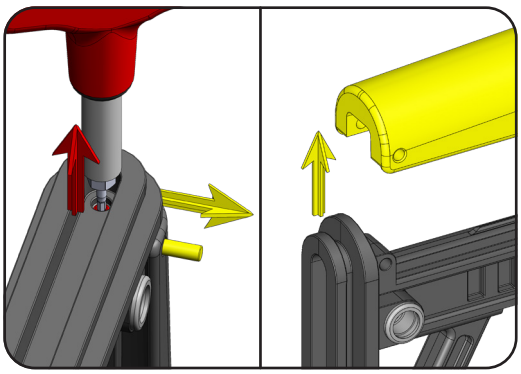
g. Preload the cheek rest knob. (yellow)
h. Mount the retaining screw and tighten it hand-tight.

13.2.9 Changing the back cheek rest and the end cap

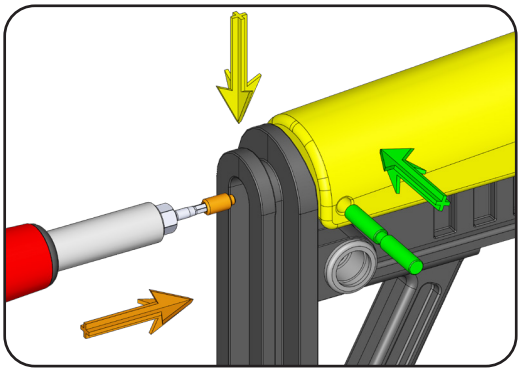
a. Insert a pointed tool (screwdriver size 0) between the Stock extension and the endcap (red).
b. Lift the end cap (orange) and drive it out of the groove on the stock extension.
c. Remove the end cap from the stock extension (yellow).



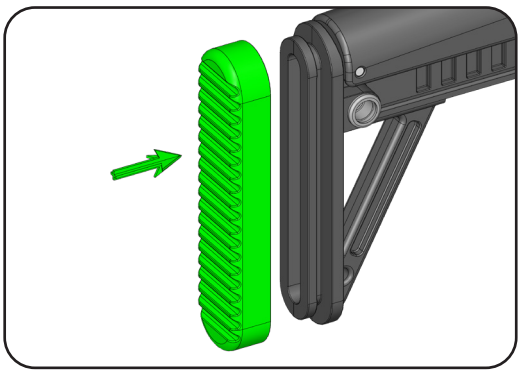
d. Remove the locking screw of the cheek rest axle with an Allen key (size 2mm). (red)
e. Remove the cheek rest axle. (yellow)
f. Remove the cheek rest.
g. Remove any dirt and foreign particles, replace worn/defective parts.



h. Position the cheek rest on the Stock extension (yellow).
i. Install the cheek rest axis (green).
j. Mount the locking screw of the cheek rest axle with an Allen key (size 2mm) (orange).

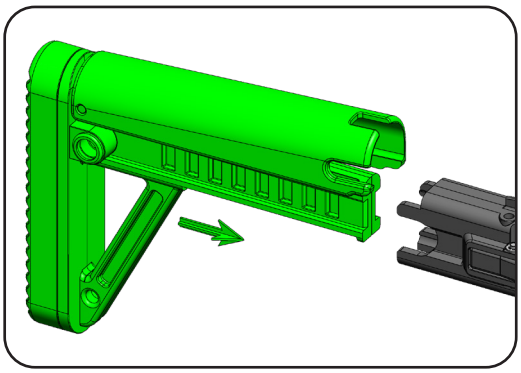


k. Insert the end cap into the groove on the Stock extension.

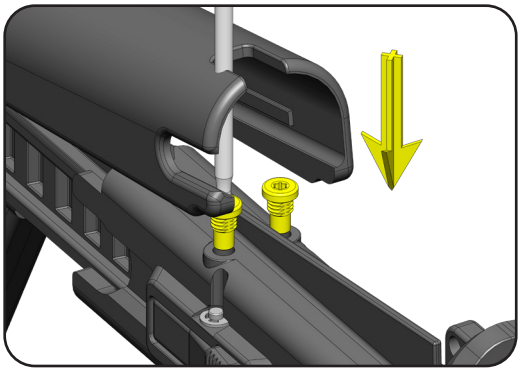


13.2.10 Reinstalling the stock extension and the cheek rest

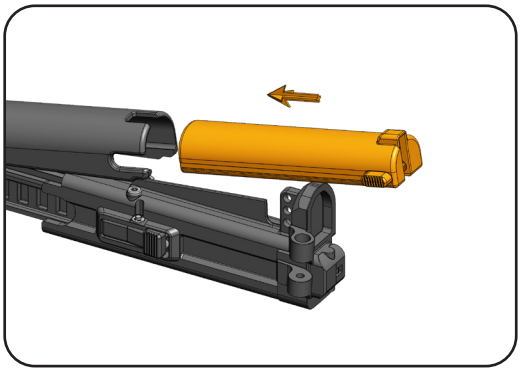
a. Insert the stock extension into the base body.



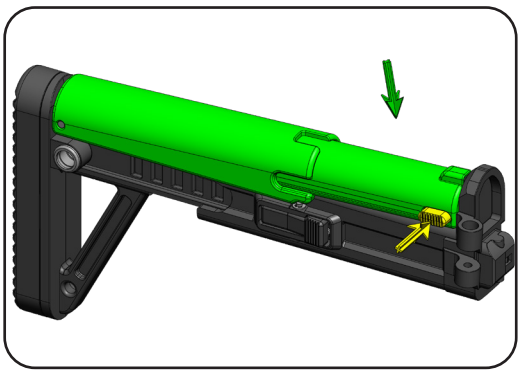
b. Mount the two locking screws with a TORX wrench. (size T10)



c. Insert the front cheek rest into the rear cheek rest from the front.



d. Pull out the stock extension completely.
e. Push in the release button for the cheek rest completely (yellow). At the same time, turn the cheek rest downward to retract it into the base body (green).



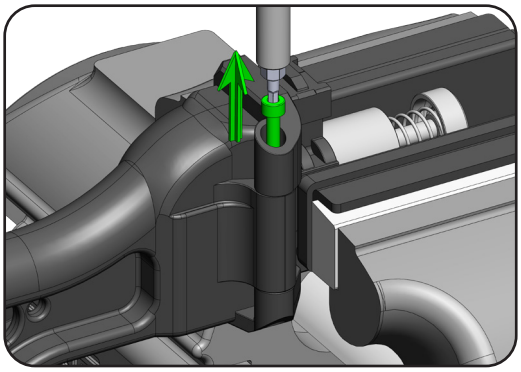
13.3 Folding stock

13.3.1 Inspections on the folding stock

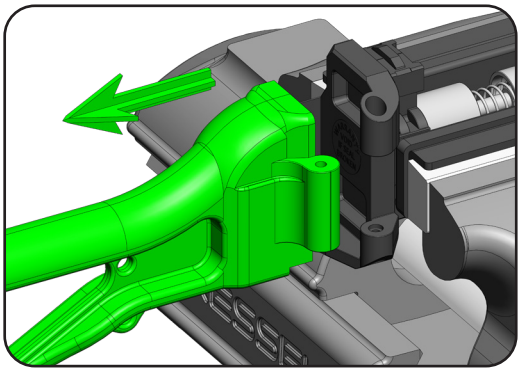
a. Visually inspect the stock for dirt, cracks or fractures.
   » Clean if necessary.
   » There should be no visible defects.
b. Fold the stock down and back
   » The stock should be able to be folded down without major effort.
   » The stock should lock in both the folded and the straight position and the lock should be easy to release again.

13.3.2 Changing the stock adapter / the stock

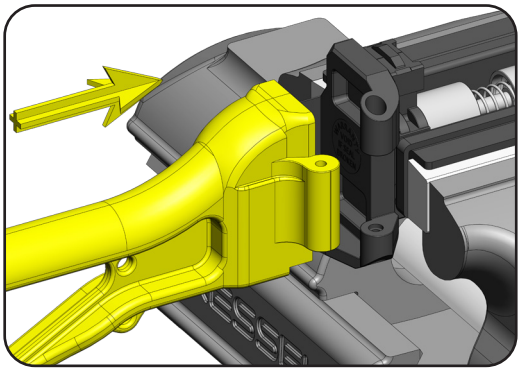
a. Clamp the stock adapter in the vice.
b. Remove the folding axle with an 3mm Allen key.



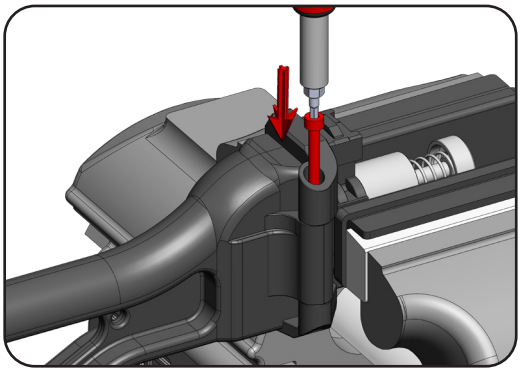
c. Remove the stock from the stock adapter (green)
d. Remove any dirt and foreign particles, replace worn/ defective parts.



e. Insert the stock into the stock adapter (yellow).



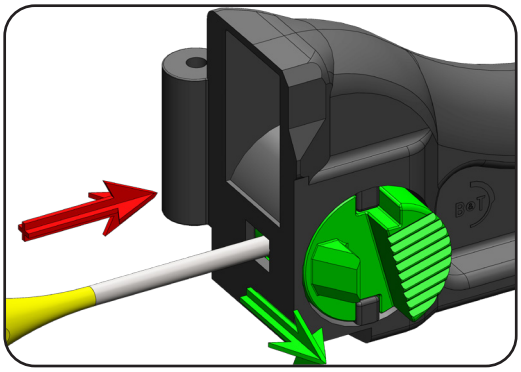
f. Guide the folding axis through the hole on the stock and the stock adapter.
g. Screw in the folding axis and tighten hand-tight. (approx. 2Nm).



13.3.3 Changing the stock release button

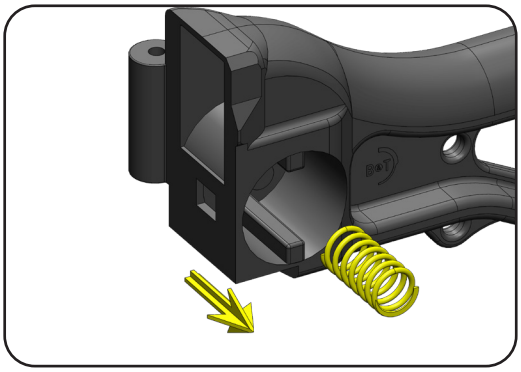
a. Use a 4 mm punch to press in the locking lug of the stock release button (red), securing the stock release button with your thumb.

SAFETY-REMARK!	
⚠	The stock release button is under tension, in case of careless handling it may pop out

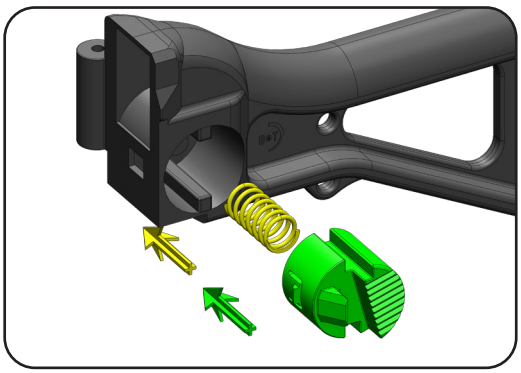


b. Remove the stock release button from the base body (green).

c. Remove the spring from the base body.
d. Remove any dirt and foreign particles, replace worn/defective parts.



e. Insert the spring and stock release button into the base body and press in until the latching lug on the stock release button audibly engages.



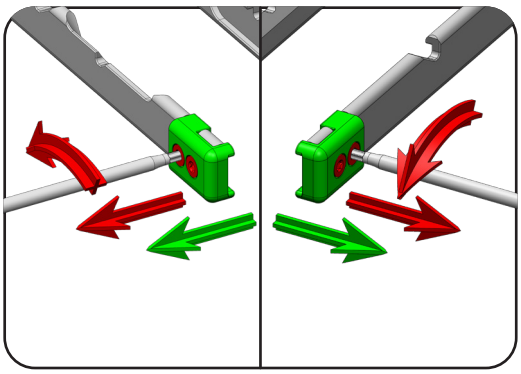
13.4 Telescopic stock

13.4.1 Inspections on the telescopic stock

a. Visually inspect the stock for dirt, cracks or fractures.
   » Clean if necessary.
   » There should be no visible defects.
b. Retract and extend the stock
   » The stock should be able to be retracted and extended without major effort.
   » The stock should lock in both the extended position and the lock should be easy to release again.

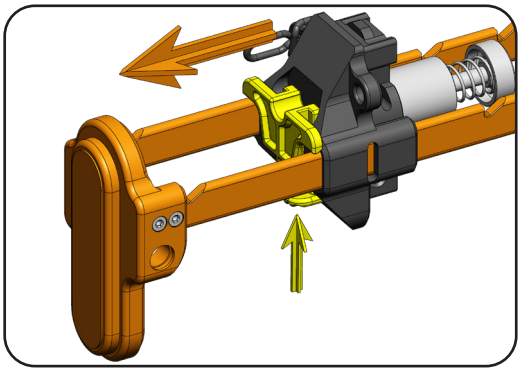
13.4.2 Changing parts on the telescopic stock

a. Clamp the stock adapter in the vice.
b. Remove the countersunk screws (TORX 10, red) and the end cap on the right side of the stock. (green)
   » Preheat the screws wit a heat gun to break the thread locker.
c. Remove the countersunk screws (TORX 10, red) and the end cap on the right side of the stock. (green)
   » Preheat the screws wit a heat gun to break the thread locker.

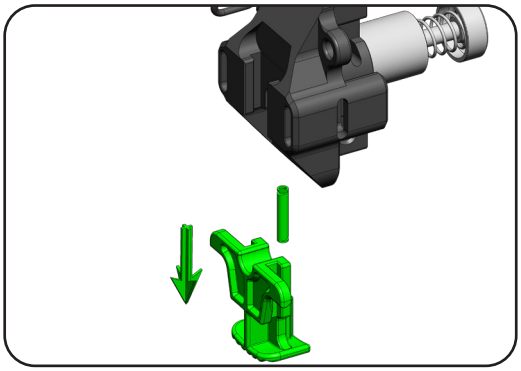


d. Push on the stock release button and hold it. (yellow)
e. Remove the rear stock part from the stock adapter. (orange)

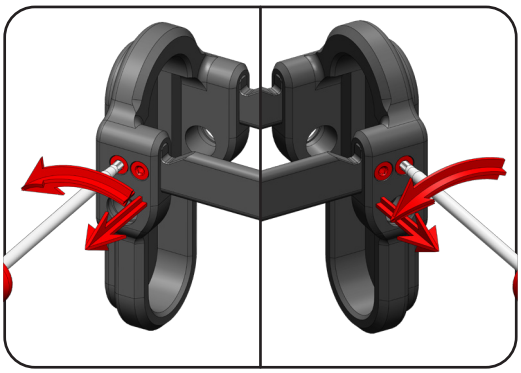
SAFETY-REMARK!	
⚠	The stock release button is under tension While pulling the rear stock part out, keep the pressure up with thumb and then slowly release it



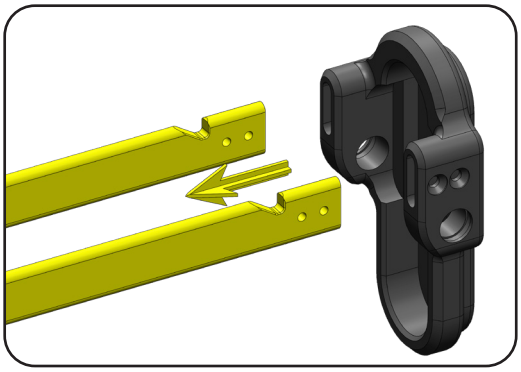
f. Remove the release button and the spring from the stock adapter. (green)



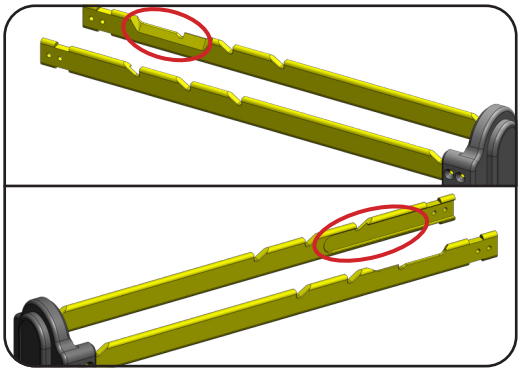
g. Remove the countersunk screws (TORX 10) on the right side of the but plate. (red)
   » Preheat the screws wit a heat gun to break the thread locker.
h. Remove the countersunk screws (TORX 10) in the left side of the but plate. (red)
   » Preheat the screws wit a heat gun to break the thread locker.



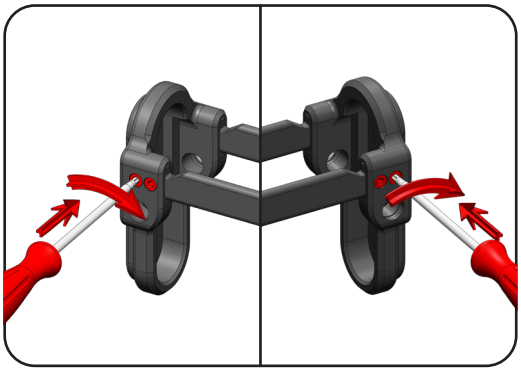
i. Remove both right side and left side guide rod from the butt-plate. (yellow)
j. Remove any dirt and foreign particles, replace worn/ defective parts.
k. Clean the four thread holes in each of the two guide rods from all thread locker residue and degrease them.
l. Degrease the eight countersunk screws and sort them by size



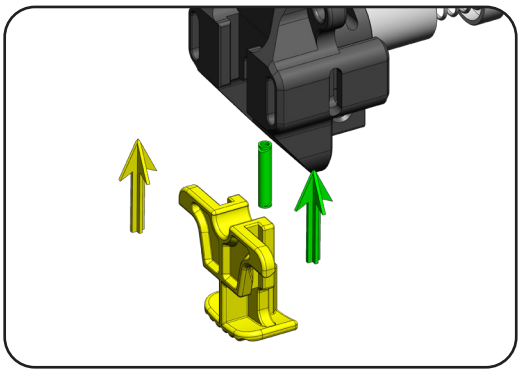
m. Apply a little amount of medium strength thread locker (e.g. Loctite 243) on threads of the two guide rods
n. Insert the right and left guide rod in the But plate
   » Make sure that the left and right one are correct



o. Screw the 8mm long screws (the longest) through the holes in the butt-plate into the guide rod threads and tighten them hand-tight. (TORX 10, 1 Nm)

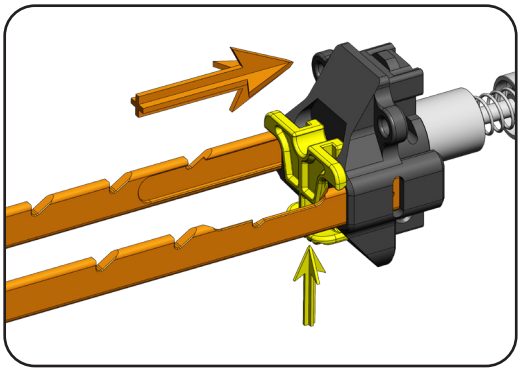


p. Mount the stock release button and its spring into the stock adapter. Push the button in and hold it at the end position.



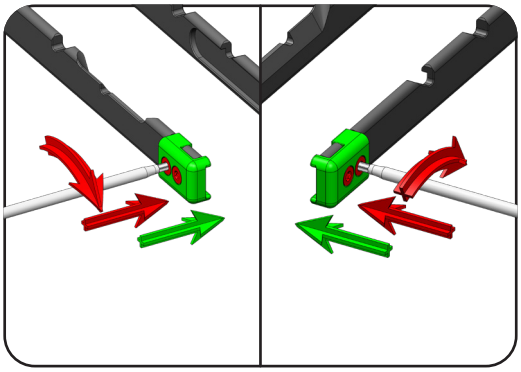
SAFETY-REMARK!	
⚠	The stock release button is under tension, in case of careless handling it may pop out

q. Insert the rear part of the Stock into the stock adapter.



r. Insert the end caps on the right and left guide rod. (green)

s. Screw the countersunk screws through the holes in the end caps into the guide rod threads and tighten them hand-tight. (TORX 10, 1 Nm)
   - » Right side: 6mm long screws (the middle ones)
   - » Left side: 5mm long screws (the shortest)



14. Troubleshooting

#	Observation	Immediate action
1	Inconsistent impacts	Control correct position and tight sit of the iron sights. Check Barrel for tight sit. If the malfunction persists, have the gun checked by the manufacturer.
2	Failure to feed	Check barrel for obstructions. Check magazine lips for cracks or dents. Check bolt face and feed lip for dents or deformation. If the malfunction persists, have the gun checked by the manufacturer.
3	Failure to eject	Check extractor and ejector for dents or deformation. Check bolt face and feed lip for dents or deformation. If the malfunction persists, have the gun checked by the manufacturer.
4	Failure to strike	Check trigger, hammer and selector Lever for dents or deformation. If the malfunction persists, have the gun checked by the manufacturer.
5	Failure to ignite	Check firing pin protrusion. Check firing pin for cracks, dents or deformations. Check firing pin bore in the bolt for obstructions. If the malfunction persists, have the gun checked by the manufacturer.

REMARK!	
ⓘ	Failure reports to the manufacturer must include the serial number, gun number, type of ammunition and a failure description. The report can be sent to B&T by e-mail together with pictures.

15. Warranty statement

Warranty claims on behalf of the Client are to be explicitly declared as such. During the legal warranty period, B&T provides warranty cover solely for defects that arise as a result of faulty materials, construction errors or poor workmanship. If a warranty claim is justified, B&T will, at its own discretion, either repair or replace the defective good. Costs incurred in transporting the defective good to B&T are borne by the Client. Spare parts fitted and replaced become the property of B&T.
Inasmuch as is legally permitted, any other liability of B&T is excluded, in particular liability for damages arising either directly or indirectly from the delivered good itself, from its use or from its defects.
Merchandise is covered by the warranty provisions of the manufacturer. Parts that are naturally subject to wear and tear, damage arising from insufficient maintenance work, noncompliance with operating regulations and cases of force majeure are all excluded from warranty cover. Warranty claims lapse if the Client itself or third parties alter or repair the delivered good without the prior written consent of B&T. All product specifications are subject to change without prior notice. Published data are mean values and therefore not suitable acceptance criteria.

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Notes: